

PRD-410  
4-83

# CASE NUMBER:

99-343

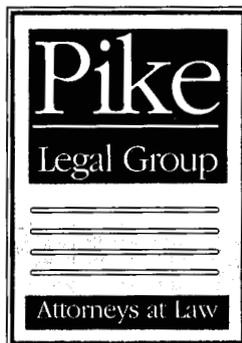
VII-J-237; Box 44

HISTORY INDEX FOR CASE: 1999-343  
NPCR, INC. DBA NEXTEL PARTNERS  
Construct  
CELL SITE - 100 BUNKER HILL ROAD - WILLIAMSBURG

IN THE MATTER OF THE APPLICATION OF CROWN COMMUNICATION INC.  
AND NPCR, INC., C/B/A NEXTEL PARTNERS FOR ISSUANCE OF A  
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT  
A WIRELESS COMMUNICATIONS FACILITY AT 100 BUNKER HILL ROAD,  
WILLIAMSBURG, KY 40769

IN THE WIRELESS COMMUNICATIONS LICENSE AREA  
IN THE COMMONWEALTH OF KENTUCKY  
IN THE COUNTY OF WHITLEY  
SITE NAME: SAXTON

SEQ NBR	ENTRY DATE	REMARKS
0001	08/25/1999	Application.
M0001	08/25/1999	DAVID PIKE CROWN COMMUNICATIONS-APPLICATION
0002	09/01/1999	Acknowledgement letter.
0003	09/08/1999	Def. letter, info due 9/23
M0002	09/13/1999	DAVID PIKE CROWN COMMUNICATIONS-RESPONSE TO FILING DEFICIENCIES NOTICE 9-8-99
M0003	09/23/1999	CROWN COMMUNICATIONS DAVID PIKE-MOTION TO SUBMIT
0004	10/01/1999	Def. cured letter
0005	11/01/1999	FINAL ORDER GRANTING CONSTRUCTION
M0004	01/14/2000	DAVID PIKE CROWN COMMUNICATIONS-FEDERAL AVIATION & KY AIRPORT ZONING COMMISSION APPROVALS



RECEIVED

JAN 14 2000

PUBLIC SERVICE  
COMMISSION

January 13, 2000

Susan G. Hutcherson  
Filings Division Manager, Docket Branch  
Kentucky Public Service Commission  
730 Schenkel Lane  
P.O. Box 615  
Frankfort, KY 40602

Re: Applicant: Crown Communication, Inc.  
PSC Case No.: 99-343  
Crown Site No.: 304KY  
Crown Site Name: Saxton  
Federal Aviation Administration Approval  
Kentucky Airport Zoning Commission Approval

Dear Susan:

Please accept this letter and the attached documents as an official filing in the above-referenced Public Service Commission action. The Certificate of Public Convenience and Necessity issued in this action called for the Applicant to file a copy of the Federal Aviation Administration and Kentucky Airport Zoning Commission approvals once they were obtained. Copies of this relevant documentation are attached to this letter for inclusion in the official case file.

If you have any questions or comments concerning this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "David A. Pike".

David A. Pike  
Regional Counsel, Crown Communication Inc.  
E-mail: pikelegal@aol.com

DAP/slb

Enclosures



SAXTON  
12/15/99

Federal Aviation Administration  
Southern Region, ASO-520  
P.O. Box 20636  
Atlanta, GA 30320

AERONAUTICAL STUDY  
No: 99-ASO-3650-OE

ISSUED DATE: 08/17/99

CHRISTINE VERRE  
CROWN COMMUNICATION, INC  
375 SOUTHPOINT BLVD  
CANONSBURG, PA 15317

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has completed an aeronautical study under the provisions of 49 U.S.C., Section 44718 and, if applicable, Title 14 of the Code of Federal Regulations, part 77, concerning:

Description: NEW ANTENNA TOWER  
SEE ATTACHED FREQUENCIES  
Location: WILLIAMSBURG KY  
Latitude: 36-38-08.55 NAD 83  
Longitude: 084-06-06.65  
Heights: 375 feet above ground level (AGL)  
1447 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

-As a condition to this determination, the structure should be marked and/or lighted in accordance with FAA Advisory Circular 70/7460-1J, Obstruction Marking and Lighting, Chapters 4, 8(M-Dual), & 13.

-It is required that the enclosed FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

N/A At least 10 days prior to start of construction  
(7460-2, Part I)

X Within 5 days after construction reaches its greatest height  
(7460-2, Part II)

This determination expires on 02/17/01 unless:

- (a) extended, revised or terminated by the issuing office or
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case the determination expires on the date prescribed by the FCC for completion of construction or on the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

-As a result of this structure being critical to flight safety, it is

required that the FAA be kept apprised as to the status of this project. Failure to respond to periodic FAA inquiries could invalidate this determination.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, frequency(ies) or use of greater power will void this determination. Any future construction or alteration, including increase in heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

<sup>5581</sup>  
If we can be of further assistance, please contact our office at 404-305-~~5589~~. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 99-ASO-3650-OE.

*Wade Carpenter*

Mary Z. Mc Burney  
Specialist, Airspace Branch

(DNE)

7460-2 Attached



Kentucky Airport Zoning Commission  
125 Holmes Street  
Frankfort, KY 40622

Saxton  
(502) 564-1800  
fax: (502) 564-7953  
No.: AS-118-WWC-99-148

September 14, 1999

APPROVAL OF APPLICATION

APPLICANT:  
CROWN COMMUNICATION INC  
CHRISTINE VERRE, REGULATORY COORDINATOR  
375 SOUTH POINTE BOULEVARD  
Cannonsburg, PA 15317

SUBJECT: AS-118-WWC-99-148

STRUCTURE: Antenna Tower  
LOCATION: Williamsburg, KY  
COORDINATES: 36°38'08.55"N / 84°06'06.65"W  
HEIGHT: 375' AGL/1,447' AMSL

The Kentucky Airport Zoning Commission has approved your application for a permit to construct (375' AGL/1,447' AMSL) Antenna Tower near Williamsburg, KY 36°38'09"N, 84°06'07"W.

This permit is valid for a period of 18 Month(s) from its date of issuance. If construction is not completed within said 18-Month period, this permit shall lapse and be void, and no work shall be performed without the issuance of a new permit.

A copy of the approved application is enclosed for your files.

Dual obstruction lighting is required in accordance with 602 KAR 50:100..

Ronald Bland, Administrator

INDEX FOR CASE: 99-343  
NPCR, INC. DBA NEXTEL PARTNERS  
Construct  
CELL SITE - 100 BUNKER HILL ROAD - WILLIAMSBURG

IN THE MATTER OF THE APPLICATION OF CROWN COMMUNICATION INC.  
AND NPCR, INC., C/B/A NEXTEL PARTNERS FOR ISSUANCE OF A  
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT  
A WIRELESS COMMUNICATIONS FACILITY AT 100 BUNKER HILL ROAD,  
WILLIAMSBURG, KY 40769  
IN THE WIRELESS COMMUNICATIONS LICENSE AREA  
IN THE COMMONWEALTH OF KENTUCKY  
IN THE COUNTY OF WHITLEY  
SITE NAME: SAXTON

SEQ NBR	ENTRY DATE	REMARKS
0001	08/25/99	Application.
M0001	08/25/99	DAVID PIKE CROWN COMMUNICATIONS-APPLICATION
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0003	09/08/99	Def. letter, info due 9/23
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%PSM-E-OPENIN, error opening \_PSCVXA\$DUC3:[ALDRIDGE]HRNG\_INDEX.PRT;1 as input  
-RMS-E-FNF, file not found



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

CERTIFICATE OF SERVICE

RE: Case No. 99-343  
NPCR, INC. DBA NEXTEL PARTNERS

I, Stephanie Bell, Secretary of the Public Service Commission, hereby certify that the enclosed attested copy of the Commission's Order in the above case was served upon the following by U.S. Mail on November 1, 1999.

See attached parties of record.

*Stephanie D. Bell*

Secretary of the Commission

SB/sa  
Enclosure

Donald J. Manning  
Vice President and General Counsel  
NPCR, Inc.  
dba Nextel Partners  
4500 Carillon Point  
Kirkland, WA. 98033

Rodney Strong  
Crown Communications Inc.  
11001 Bluegrass Parkway, Suite 330  
Louisville, KY. 40299

Honorable David A. Pike  
Counsel for Crown Communication  
Pike Legal Group  
200 S. Buckman Street  
P. O. Box 369  
Shepherdsville , KY. 40165 0369

Honorable W. Brent Rice  
Counsel for Nextel Partners  
McBrayer, McGinnis,  
Leslie & Kirkland  
163 W. Short Street  
Lexington, KY. 40507 1361

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF CROWN COMMUNICATION INC. )  
AND NPCR, INC. D/B/A NEXTEL PARTNERS FOR )  
ISSUANCE OF A CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY TO CONSTRUCT )  
A WIRELESS COMMUNICATIONS FACILITY AT 100 )  
BUNKER HILL ROAD, WILLIAMSBURG, KY 40769 )  
IN THE WIRELESS COMMUNICATIONS LICENSE ) CASE NO. 99-343  
AREA IN THE COMMONWEALTH OF KENTUCKY )  
IN THE COUNTY OF WHITLEY )  
SITE NAME: SAXTON )  
SITE NUMBER: 304KY )

O R D E R

On August 25, 1999, Crown Communication Inc. ("Crown") and NPCR, Inc. d/b/a Nextel Partners (collectively, the "Applicants") filed an application seeking a Certificate of Public Convenience and Necessity to construct and operate a wireless telecommunications facility. The proposed facility consists of a guyed antenna tower not to exceed 375 feet in height, with attached antennas, to be located at 100 Bunker Hill Road, Williamsburg, Whitley County, Kentucky. The coordinates for the proposed facility are North Latitude 36° 38' 8.55" by West Longitude 84° 6' 6.65".

Crown has provided information regarding the structure of the tower, safety measures, and antenna design criteria for the proposed facility. Based upon the application, the design of the tower and foundation conforms to applicable nationally

recognized building standards, and the plans have been certified by a Registered Professional Engineer.

Pursuant to 807 KAR 5:063, the Applicants have notified the County Judge/Executive of the proposed construction. To date, no comments have been filed. The Applicants have filed applications with the Federal Aviation Administration ("FAA") and the Kentucky Airport Zoning Commission ("KAZC") seeking approval for the construction and operation of the proposed facility. Both applications are pending.

The Applicants have filed evidence of the appropriate notices provided pursuant to 807 KAR 5:063. The notices solicited any comments and informed the recipients of their right to request intervention. To date, no comments have been filed with the Commission.

Pursuant to KRS 278.280, the Commission is required to determine proper practices to be observed when it finds, upon complaint or on its own motion, that the facilities of any utility subject to its jurisdiction are unreasonable, unsafe, improper, or insufficient. To assist the Commission in its efforts to comply with this mandate, Crown should notify the Commission if it does not use this antenna tower to provide service in the manner set out in its application and this Order. Upon receipt of such notice, the Commission may, on its own motion, institute proceedings to consider the proper practices, including removal of the unused antenna tower, which should be observed by Crown.

The Commission, having considered the evidence of record and being otherwise sufficiently advised, finds that the Applicants have demonstrated that a facility is necessary to provide adequate utility service and therefore should be granted a Certificate of Public Convenience and Necessity to construct the proposed facility.

IT IS THEREFORE ORDERED that:

1. Crown is granted a Certificate of Public Convenience and Necessity to construct a guyed antenna tower not to exceed 375 feet in height, with attached antennas, to be located at 100 Bunker Hill Road, Williamsburg, Whitley County, Kentucky. The coordinates for the proposed facility are North Latitude 36° 38' 8.55" by West Longitude 84° 6' 6.65".

2. The Applicants shall file a copy of the final decisions regarding its pending FAA and KAZC applications for the proposed construction within 10 days of receiving these decisions.

3. Crown shall immediately notify the Commission in writing, if, after the antenna tower is built and utility service is commenced, the tower is not used for a period of 3 months in the manner authorized by this Order.

Done at Frankfort, Kentucky, this 1st day of November, 1999.

By the Commission

ATTEST:

  
Executive Director



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

October 1, 1999

To: All parties of record

RE: Case No. 99-343  
NPCR, INC. DBA NEXTEL PARTNERS

The Commission staff has reviewed your response of September 13, 1999 and has determined that your application in the above case now meets the minimum filing requirements set by our regulations. Enclosed please find a stamped filed copy of the first page of your filing. This case has been docketed and will be processed as expeditiously as possible.

If you need further information, please contact my staff at 502/564-3940.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie Bell".

Stephanie Bell  
Secretary of the Commission

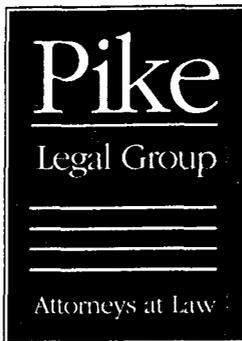
SB/sa  
Enclosure

Donald J. Manning  
Vice President and General Counsel  
NPCR, Inc.  
dba Nextel Partners  
4500 Carillon Point  
Kirkland, WA. 98033

Rodney Strong  
Crown Communications Inc.  
11001 Bluegrass Parkway, Suite 330  
Louisville, KY. 40299

Honorable David A. Pike  
Counsel for Crown Communication  
Pike Legal Group  
200 S. Buckman Street  
P. O. Box 369  
Shepherdsville , KY. 40165 0369

Honorable W. Brent Rice  
Counsel for Nextel Partners  
McBrayer, McGinnis,  
Leslie & Kirkland  
163 W. Short Street  
Lexington, KY. 40507 1361



RECEIVED

AUG 25 1999

PUBLIC SERVICE  
COMMISSION

August 24, 1999

**VIA HAND DELIVERY**

Helen C. Helton  
Executive Director  
Kentucky Public Service Commission  
730 Schenkel Lane  
P. O. Box 615  
Frankfort, Kentucky 40602

FILED

SEP 13 1999  
PUBLIC SERVICE  
COMMISSION

Re: Request for Waiver for From Requirements for Duplicate Initial Filing  
PSC Case Number: 99-343  
Site Name: Saxton  
Site Number: 304KY

Dear Helen:

Please accept this letter as our formal application for waiver of the requirement that an original and ten (10) copies of an initial application for issuance of Certificate of Public Convenience and Necessity be filed with the Kentucky Public Service Commission ("PSC") in wireless communications facilities cases. As is the normal custom, we request that we be allowed to file an original and five (5) copies of our application for Certificate of Public Convenience and Necessity.

Thank you for your courtesy. If you have any questions or comments concerning this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Pike".

David A. Pike  
Regional Counsel for Crown Communication Inc.

DAP:slb

For Inclusion in Application File





COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**  
730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KENTUCKY 40602  
www.psc.state.ky.us  
(502) 564-3940  
Fax (502) 564-3460

**Ronald B. McCloud, Secretary**  
**Public Protection and**  
**Regulation Cabinet**

**Helen Helton**  
**Executive Director**  
**Public Service Commission**

**Paul E. Patton**  
**Governor**

September 8, 1999

Donald J. Manning  
Vice President and General Counsel  
NPCR, Inc.  
4500 Carillon Point  
Kirkland, WA 98033

Honorable W. Brent Rice  
McBrayer, McGinnis,  
Leslie & Kirkland  
163 W. Short Street  
Lexington, KY 40507 1361

Re: Case No. 99-343  
Filing Deficiencies

Gentlemen:

The Commission staff has conducted an initial review of your filing in the above case. This filing is rejected pursuant to 807 KAR 5:001, Section 2, as it is deficient in certain filing requirements. The items listed below are either required to be filed with the application or must be referenced if they are already on file in another case or will be filed at a later date.

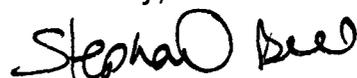
Filing deficiencies pursuant to 807 KAR 5:063, Section 1(1)(d):

A geotechnical investigation report, signed and sealed by a professional engineer registered in Kentucky, that includes boring logs, foundation design recommendations, and a finding as to the proximity of the proposed site to flood hazard areas (findings re: flood hazard area proximity may be prepared by a land surveyor).



The statutory time period in which the Commission must process this case will not commence until the above-mentioned information is filed with the Commission. You are requested to file 10 copies of this information within 15 days of the date of this letter. If you need further information, please contact James Jenkins of my staff at (502) 564-3940, ext. 409.

Sincerely,



Stephanie Bell  
Secretary of the Commission

sa

cc: Parties of Record



COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

SEP 23 1999

PUBLIC SERVICE  
COMMISSION

In the Matter of:

APPLICATION OF CROWN COMMUNICATION INC.  
AND NPCR, INC., d/b/a NEXTEL PARTNERS  
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC  
CONVENIENCE AND NECESSITY TO CONSTRUCT  
A WIRELESS COMMUNICATIONS FACILITY AT  
100 BUNKER HILL ROAD, WILLIAMSBURG, KY 40769  
IN THE WIRELESS COMMUNICATIONS LICENSE AREA  
IN THE COMMONWEALTH OF KENTUCKY  
IN THE COUNTY OF WHITLEY

CASE NO.: 99-343

SITE NAME: SAXTON  
SITE NUMBER: 304KY

\*\*\*\*\*

**MOTION TO SUBMIT  
FOR EXPEDITED DECISION WITHOUT PUBLIC HEARING**

Come the Applicants, Crown Communication Inc. ("Crown"), as ultimate owner and NPCR, Inc., d/b/a Nextel Partners ("Provider"), Applicants herein, by counsel, and move the Kentucky Public Service Commission's ("Commission") to promptly grant a Certificate of Public Convenience and Necessity ("CPCN") in the within Application proceeding based on the following facts and circumstances:

1. The Applicants have met all filing requirements under the Kentucky Revised Statutes and the Kentucky Administrative Regulations applicable to this proceeding.
2. There are no Interveners in this proceeding after Notice has been afforded pursuant to the terms of the Kentucky Revised Statutes and the Kentucky Administrative Regulations.
3. The Wireless Communications Facility ("WCF") which is the subject of this Application for a CPCN is a vital element of the Provider's wireless communications

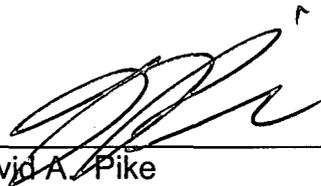
network, and is necessary to provide service in accordance with provisions of its license with the Federal Communications Commission.

4. The county where the WCF is located has not registered for the right to regulate cell sites with the PSC, and has not adopted planning and zoning regulations in accordance with KRS 100.

5. The Application in this administrative proceeding was originally filed with the Commission on August 25, 1999, 29 days before the submission of this Motion.

WHEREFORE, Crown Communication Inc. and NPCR, Inc., d/b/a Nextel Partners ("Provider"), Applicants herein, by counsel, urge the Kentucky Public Service Commission to promptly grant a Certificate of Public Convenience and Necessity in accordance with the terms of the Application in this proceeding without public hearing.

Respectfully submitted,



---

David A. Pike  
Pike Legal Group  
200 S. Buckman Street  
Post Office Box 369  
Shepherdsville, KY 40165-0369  
Telephone: (502) 955-4400  
Telefax: (502) 543-4410  
E-Mail: pikelegal@aol.com  
ATTORNEY FOR CROWN COMMUNICATION INC.

and

W. Brent Rice  
McBrayer, McGinnis, Leslie & Kirkland  
163 W. Short Street  
Lexington, KY 40507-1361  
Telephone: (606) 231-8780  
COUNSEL FOR NPCR, INC., d/b/a NEXTEL PARTNERS

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

APPLICATION OF CROWN COMMUNICATION INC. )  
AND NPCR, INC., d/b/a NEXTEL PARTNERS )  
FOR ISSUANCE OF A CERTIFICATE OF PUBLIC )  
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A WIRELESS COMMUNICATIONS FACILITY AT )  
100 BUNKER HILL ROAD, WILLIAMSBURG, KY 40769 )  
IN THE WIRELESS COMMUNICATIONS LICENSE AREA )  
IN THE COMMONWEALTH OF KENTUCKY )  
IN THE COUNTY OF WHITLEY )  
)  
)  
SITE NAME: SAXTON )  
SITE NUMBER: 304KY )

**RECEIVED**  
SEP 13 1999  
PUBLIC SERVICE  
COMMISSION  
CASE NO.: 99-043

\*\*\*\*\*

**RESPONSE TO FILING DEFICIENCIES NOTICE - 9/8/99**

Comes Crown Communication Inc. ("Crown"), as ultimate owner and NPCR, Inc., d/b/a Nextel Partners ("Provider"), Applicants, by counsel, and for their Response to the Kentucky Public Service Commission's ("Commission") Filing Deficiencies Notice dated September 8, 1999, state as follows:

1. The Filings Deficiencies Notice dated September 8, 1999 ("Deficiencies Notice") lists a failure pursuant in 807 KAR 5:063, Section 1(1)(d) in that the Applicants failed to submit a geotechnical investigation report signed and sealed by a professional engineer registered in Kentucky. The geotechnical investigation submitted by the Applicants as Exhibit H to their original Application received by the Commission on September 1, 1999 was not signed and sealed by a professional engineer.

2. Attached to this Response is a new Exhibit H to be appended to the original Application received by the Commission in this administration action on September 1, 1999

replacing the previous Exhibit H. This new geotechnical investigation report is properly signed and sealed by a professional engineer registered in Kentucky.

3. A Flood Hazard Proximity Statement in compliance with the terms of 807 KAR 5:063, Section 1(1)(d) is included as part of the Applicants' original Exhibit B, Page C-2 attached to their Application filed in this administrative action on September 1, 1999.

WHEREFORE, the Applicants submit their Response to the Deficiencies Notice, and request that the Commission take all necessary steps to promptly enter their original Application as having been filed effective September 1, 1999, the original date of receipt of the Application by the Commission.

Respectfully submitted,



---

David A. Pike  
Pike Legal Group  
200 S. Buckman Street  
Post Office Box 369  
Shepherdsville, KY 40165-0369  
Telephone: (502) 955-4400  
Telefax: (502) 543-4410  
E-Mail: pikelegal@aol.com  
ATTORNEY FOR CROWN COMMUNICATION INC.

and

W. Brent Rice  
McBrayer, McGinnis, Leslie & Kirkland  
163 W. Short Street  
Lexington, KY 40507-1361  
Telephone: (606) 231-8780  
COUNSEL FOR NCPR, INC., d/b/a NEXTEL PARTNERS



COMMONWEALTH OF KENTUCKY  
**PUBLIC SERVICE COMMISSION**

730 SCHENKEL LANE  
POST OFFICE BOX 615  
FRANKFORT, KY. 40602  
(502) 564-3940

September 1, 1999

To: All parties of record

RE: Case No. 99-343  
NPCR, INC. DBA NEXTEL PARTNERS  
(Construct) CELL SITE - 100 BUNKER HILL ROAD - WILLIAMSBURG

This letter is to acknowledge receipt of initial application in the above case. The application was date-stamped received August 25, 1999 and has been assigned Case No. 99-343. In all future correspondence or filings in connection with this case, please reference the above case number.

If you need further assistance, please contact my staff at 502/564-3940.

Sincerely,

*Stephanie Bell*

Stephanie Bell  
Secretary of the Commission

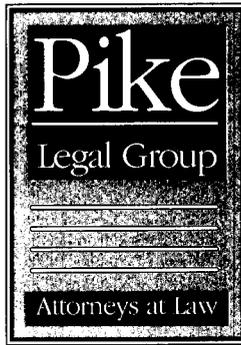
SB/jc

•  
Donald J. Manning  
Vice President and General Counsel  
NPCR, Inc.  
dba Nextel Partners  
4500 Carillon Point  
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Rodney Strong  
Crown Communications Inc.  
11001 Bluegrass Parkway, Suite 330  
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Honorable David A. Pike  
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Pike Legal Group  
200 S. Buckman Street  
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Shepherdsville , KY. 40165 0369

Honorable W. Brent Rice  
Counsel for Nextel Partners  
McBrayer, McGinnis,  
Leslie & Kirkland  
163 W. Short Street  
Lexington, KY. 40507 1361



RECEIVED

AUG 25 1999

PUBLIC SERVICE  
COMMISSION

August 24, 1999

VIA HAND DELIVERY

Helen C. Helton  
Executive Director  
Kentucky Public Service Commission  
730 Schenkel Lane  
P. O. Box 615  
Frankfort, Kentucky 40602

FILED

SEP 13 1999

PUBLIC SERVICE  
COMMISSION

Re: Request for Waiver for From Requirements for Duplicate Initial Filing  
PSC Case Number: 99-343  
Site Name: Saxton  
Site Number: 304KY

Dear Helen:

Please accept this letter as our formal application for waiver of the requirement that an original and ten (10) copies of an initial application for issuance of Certificate of Public Convenience and Necessity be filed with the Kentucky Public Service Commission ("PSC") in wireless communications facilities cases. As is the normal custom, we request that we be allowed to file an original and five (5) copies of our application for Certificate of Public Convenience and Necessity.

Thank you for your courtesy. If you have any questions or comments concerning this matter, please do not hesitate to contact me.

Sincerely,

David A. Pike  
Regional Counsel for Crown Communication Inc.

DAP:slb

For Inclusion in Application File



RECEIVED  
AUG 25 1999  
PUBLIC SERVICE  
COMMISSION

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF CROWN COMMUNICATION INC. )  
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FOR ISSUANCE OF A CERTIFICATE OF PUBLIC ) CASE NO.: 99-343  
CONVENIENCE AND NECESSITY TO CONSTRUCT )  
A WIRELESS COMMUNICATIONS FACILITY AT )  
100 Bunker Hill Road, Williamsburg, KY 40769 )  
IN THE WIRELESS COMMUNICATIONS LICENSE AREA )  
IN THE COMMONWEALTH OF KENTUCKY )  
IN THE COUNTY OF Whitley )

SITE NAME: Saxton  
SITE NUMBER: 304KY

\*\*\*\*\*

Crown Communication Inc. ("Crown"), as ultimate owner, and NPCR, INC., d/b/a NEXTEL PARTNERS ("Provider"), as a licensed public utility in the Commonwealth of Kentucky, hereinafter jointly referred to as "Applicants", by counsel, pursuant to (i) KRS 278.020 and the rules and regulations applicable thereto, and (ii) the Telecommunications Act of 1996, respectfully submit their Application for a Certificate of Public Convenience and Necessity ("CPCN") from the Public Service Commission of Kentucky ("Commission") to construct, maintain, and operate a Wireless Communications Facility ("WCF") to serve the customers of the Provider with wireless telecommunications services, and other wireless service provider collocations in the area described herein.

In support of this Application, the Applicants respectfully provide and state the following information:

1. The complete names and addresses of the Applicants are:

Crown Communication Inc., a Delaware Corporation, 375 Southpointe Boulevard, Canonsburg, PA 15317, (724) 416-2000, having a local address of Commonwealth Business Center, 11001 Bluegrass Parkway, Suite 330, Louisville, Kentucky 40299, (502) 240-0044.

NPCR, INC., d/b/a Nextel Partners, 9 East Lookerman Street, Dover, Delaware 19901.

2. Crown constructs, owns, manages, maintains, and operates independent communications networks. Crown owns and manages safe, clean, and well-maintained facilities. Crown facilities do not generate smoke, odors, noise, noxious gases, vibrations, or increase traffic. Studies show that Crown's facilities will not pollute air, soil, or water, nor will they adversely affect radio or television reception or transmission. A certified copy of the Certificate of Authority under the name of Crown Communication Inc., issued by the Secretary of State of the Commonwealth of Kentucky, and a certified copy of the Articles of Incorporation issued by the Secretary of State of Delaware are attached hereto as **Exhibit A**. A certified copy of the Certificate of Authority under the name of NPCR, INC., issued by the Secretary of State of the Commonwealth of Kentucky, and a certified copy of the Articles of Incorporation issued by the Secretary of State of Delaware are attached hereto as **Exhibit A**.

3. After completion of the proposed WCF, Crown will lease or license space on said tower and the surrounding site so that the Provider may locate and operate its facility including all required antennas and appurtenances. The proposed WCF will serve an area completely within the Provider's FCC licensed service area in the Commonwealth of Kentucky. The Provider is authorized to provide wireless services by the FCC and the Commission. Crown has located the proposed site in a manner such that other wireless communications service providers will desire to collocate on said tower, and will endeavor to provide all necessary facilities to make collocation attractive to them.

4. The public convenience and necessity require the construction of the proposed WCF. The construction of the WCF will bring the Provider's services to an area currently not served by the Provider and will thereby enhance the public's access to innovative and competitive wireless telecommunications services. The WCF will provide a necessary link in the Provider's telecommunications network that is designed to meet the increasing demands for wireless services in Kentucky's wireless communications licensed area. The WCF is an integral link in the Provider's network design that must be in place to cover the proposed service area.

5. Crown's construction of the described WCF is desirable because it allows for the collocation of additional wireless service providers within this portion of the Kentucky wireless communications licensed area. These services may include telecommunications, wireless data transfer and Internet services, wireless cable, paging systems, 911 service, and other new products currently being developed in the wireless industry. In addition, the

WCF will be available for use by governmental agencies and providers of emergency services. The WCF will provide a necessary link in Crown's wireless infrastructure network, and Crown, as part of its business structure, will diligently pursue and encourage other wireless providers to collocate on the WCF. These services will provide increased competition in the local Kentucky telecommunications market, which will, in turn, promote competitive pricing, quality, and coverage options to users of telecommunications services in this area. Crown's vested interest in the collocation of wireless service providers promotes the same goals for the local consumers.

6. The Applicants propose to construct a WCF at 100 Bunker Hill Road, Williamsburg, KY 40769, (36° 38' 08.55" North latitude, 84° 06' 06.65" West longitude), in an area located entirely within the county referenced in the caption of this application. The property on which the WCF will be located is owned by Kenneth and Linda Anderson. The proposed WCF will consist of a 350-foot guyed tower, with an approximately 25-foot lightning arrestor attached at the top, for a total height of 375 feet. The WCF will also include concrete foundations to accommodate the placement of the Provider's proprietary radio electronics equipment. The equipment will be housed in a prefabricated cabinet or shelter that will contain: (i) the transmitting and receiving equipment required to connect the WCF with the Provider's users in Kentucky, (ii) telephone lines that will link the WCF with the Provider's other facilities, (iii) battery back-up that will allow the Provider to operate even after a loss of outside power, and (iv) all other necessary appurtenances. The Provider's equipment cabinet or shelter will be approved for use in the Commonwealth of Kentucky by the relevant building inspector. The WCF compound will be fenced and all

access gate(s) will be secured. A description of the manner in which the proposed WCF will be constructed is attached as **Exhibit B and C**. Periodic inspections will be performed on the WCF in accordance with the applicable regulations or requirements of the Commission. The list of competing utilities, corporations, or persons is attached as **Exhibit D**.

7. Three (3) original site development plans have been submitted with this Application; and reduced copies of this site development plan have been included as **Exhibit B and Exhibit C**. A vertical profile sketch of the WCF signed and sealed by a professional engineer registered in Kentucky depicting the tower height, as well as a proposed configuration for the antennas of the Provider and future antenna mounts, has also been included as part of **Exhibit B**. Foundation design plans and a description of the standards according to which the tower was designed signed and sealed by a professional engineer registered in Kentucky is included as part of **Exhibit C**.

8. The Applicants have considered the likely effects of the installation on nearby land uses and values and have concluded that there is no more suitable location reasonably available from which adequate services can be provided, and that there are no reasonably available opportunities to collocate. The Applicants have attempted to collocate on suitable existing structures such as a telecommunications towers or other suitable structures capable of supporting the Provider's facilities. No other suitable and available collocation site was found to be located in the vicinity of the site. Information regarding the Applicants' efforts to achieve collocation in the vicinity are presented as **Exhibit E**.

9. The Applicants have conducted a preliminary aeronautical evaluation for the proposed WCF. The evaluation determined that the proposed structure height at this site meets Federal Aviation Regulation requirements. Furthermore, FAA notice is required for the proposed construction, and lighting or marking requirements may be applicable to this facility. A copy of the FAA Application is attached as **Exhibit F**. Upon receiving authorization from the FAA, the Applicants will forward a copy of the determination as a supplement to this Application proceeding.

10. A copy of the Kentucky Airport Zoning Commission ("KAZC") Application for the proposed WCF is attached as **Exhibit G**. Upon receiving authorization from the KAZC, the Applicants will forward a copy of the determination as a supplement to this Application proceeding.

11. The WCF will be registered with the Federal Communication Commission (FCC) pursuant to applicable requirements for the structure and the provider. Appropriate FCC signage will be posted at the site upon receipt of the tower registration number.

12. A geotechnical-engineering firm has performed soil boring(s) and subsequent geotechnical-engineering studies at the WCF site under the supervision of a professional engineer registered in the Commonwealth of Kentucky who specializes in geotechnical engineering, including subsurface exploration. The geotechnical-engineering firm has performed many such studies for the communications industry. A copy of the geotechnical-engineering report and evaluation signed and sealed by a professional engineer registered in the Commonwealth of Kentucky who specializes in geotechnical engineering, including subsurface exploration, is attached as **Exhibit H**. The name and

address of the geotechnical-engineering firm and the professional engineer registered in the Commonwealth of Kentucky who supervised the examination of this WCF site are included in **Exhibit H**.

13. Clear directions to the proposed WCF site from the County seat are attached as **Exhibit I**. The name and address of the preparer of **Exhibit I** is included in **Exhibit I**.

14. Crown, pursuant to a written agreement, has acquired the right to use the WCF site and associated property rights. A copy of the abbreviated agreement recorded with the County Clerk is attached as **Exhibit J**. Also included as part of **Exhibit J** is the portion of the full agreement demonstrating that in the case of abandonment a method is provided to dismantle and remove the cellular antenna tower, including a timetable for removal.

15. Personnel directly responsible for the design and construction of the proposed WCF are well-qualified and experienced. Pirod Inc., ("the Tower Manufacturer") performed the tower and foundation design. The Tower Manufacturer is a nationally recognized manufacturer and designer of communications towers. The Tower Manufacturer has designed and installed communications towers throughout North America. The Tower Manufacturer has assigned John R. Erichsen, a professional engineer registered in the Commonwealth of Kentucky to design the WCF. This engineer specializes in the design and engineering of guyed, self-support and monopole structures, and has extensive experience in the design and construction of projects similar to the Applicants'. These projects include the design of towers and the required foundations of many other wireless facilities. All of the designs have been signed and sealed by John R.

Erichsen. The construction of the proposed WCF will be performed by Crown Network Systems, an experienced, bonded, and insured erection company. The Tower Erection Manager, Harold Harrington, will manage the tower erection. Harold Harrington is a tower installation manager for Crown and has been erecting towers for the telecommunications industry for over 8 years. All tower designs will meet or exceed applicable laws and regulations.

16. Based on a review of Federal Emergency Management Agency Flood Insurance Rate Maps, the registered land surveyor has noted in **Exhibit B** that the proposed WCF is not located within any flood hazard area.

17. The possibility of high winds has been considered in the design of this tower. The tower has been designed and engineered by professional engineers using computer assistance and the same accepted codes and standards as are typically used for high-rise building construction. The tower has been designed to withstand a wind loading of 70 m.p.h., using the Uniform Building Code of 1991 ("UBC-91") and further modified by the 1993 Administrative Code. This tower has been designed in accordance with the Electronic Industries Association ("EIA") 222-F Standards, which have been accepted and approved by ANSI and is a nationally recognized tower design standard. Similarly, the proposed WCF design has been developed with consideration of potential ground shaking based on a negligible seismic zone of 1. Seismic loading is regarded as secondary to the wind loading.

18. The site development plan signed and sealed by a professional engineer registered in Kentucky was prepared by Tashin Gurpinar and was designed from a survey

performed by Frank L. Sellinger. This site development plan is drawn to a scale of no less than one (1) inch equals 200 feet, and identifies every owner of real estate within 500 feet of the proposed tower (according to the Property Valuation Administrator) and is incorporated in the survey as part of **Exhibit B**. Every structure and every easement within 500 feet of the proposed tower or within 200 feet of the access road including intersection with the public street system is incorporated in the survey as part of **Exhibit B**.

19. Crown, on behalf of itself and the Provider, has notified every person who owns property within 500 feet of the proposed tower by certified mail, return receipt requested, of the proposed construction, along with the possibility of a temporary site being built while awaiting Commission approval. Each property owner has been given the docket number under which the proposed Application will be processed and has been informed of their right to request intervention. A list of the nearby property owners who received the notices, together with copies of the certified letters, are attached as **Exhibits K and L**, respectively.

20. Crown, on behalf of itself and the Provider, has notified the Judge Executive of the county where the WCF is located by certified mail, return receipt requested, of the proposed construction. Crown included in said notice the Public Service Commission docket number under which the application will be processed and informed said entity of its right to request intervention. A copy of this notice is attached as **Exhibit M**. The county where the WCF is located has not registered for the right to regulate cell sites with the PSC, and has not adopted planning and zoning regulations in accordance with KRS Chapter 100.

21. Two appropriate notice signs measuring at least two (2) feet in height and four (4) feet in width with all required language in letters of required height have been posted in a visible location on the proposed site and on the nearest public road and shall remain posted for at least two (2) weeks after filing of the Application. Copies of the postings are attached as **Exhibit N**. The location of the proposed facility has been published in a newspaper of general circulation in the county where the WCF is located.

22. There is one residence within a 500-foot radius of the centerline of the proposed tower location. The land surrounding the WCF site is presently vacant with the balance of the remaining land consisting of raw acreage.

23. The process that was used in selecting the site for the proposed WCF by the Applicants' radio frequency engineers was consistent with the process used for selecting generally all other existing and proposed WCF facilities within the proposed network design area. Before beginning the acquisition process, the Applicants carefully evaluated the location of the required WCF for possible collocation opportunities on existing structures. Radio frequency engineers used computer programs to evaluate the most effective coverage design for facilitating collocation potential on the proposed tower. Crown and the Provider's radio frequency engineers have combined their efforts in order to develop a highly efficient network that is designed to serve the Federal Communications Commission licensed territory without extending beyond the Provider's approved boundary. The engineers selected the optimum vicinity in terms of elevation and location to provide the best quality service to customers in the service area. A proposed coverage area was considered by the Applicants when searching for sites that would provide both (i) the

coverage deemed necessary by the Provider, and (ii) the coverage deemed necessary by Crown to permit the integration of the proposed WCF into Crown's overall network design.

No suitable towers or existing structures were found in the immediate area which would meet the technical requirements for this element of the telecommunications network. A map of the area in which the tower is proposed to be located which is drawn to scale and clearly depicts the necessary search area within which the site should, pursuant to radio frequency requirements, be located is attached as **Exhibit O**.

24. A grid map showing the location of all existing cellular antenna towers that includes the general position of proposed construction sites for new cellular antenna towers within the planning commission's jurisdiction and one-half mile outside the boundary of the planning unit's jurisdiction if that area contains either existing or proposed construction sites for cellular antenna towers is attached as **Exhibit P**.

25. All Exhibits to this Application are hereby incorporated by reference as if fully set out as part of the Application.

26. All responses and requests associated with this Application may be directed to:

Rodney Strong  
Crown Communication Inc.  
11001 Bluegrass Parkway, Suite 330  
Louisville, Kentucky 40299  
Telephone: (502) 240-0044

and

David A. Pike  
Pike Legal Group  
200 S. Buckman Street  
P. O. Box 369  
Shepherdsville, Kentucky 40165-0369  
(502) 955-4400  
COUNSEL FOR CROWN COMMUNICATION INC.

and

W. Brent Rice  
McBrayer, McGinnis, Leslie & Kirkland  
163 W. Short Street  
Lexington, Kentucky 40507-1361  
(606) 231-8780  
COUNSEL FOR NPCR, INC., d/b/a/ NEXTEL PARTNERS.

**WHEREFORE**, the Applicants respectfully request that the Commission accept the foregoing Application for filing, and having met the requirements of KRS 278.020 and all applicable rules and regulations of the Commission, grant a Certificate of Public Convenience and Necessity to construct and operate the WCF at the location set forth herein for the respective networks in the Commonwealth of Kentucky.

Respectfully submitted,



---

David A. Pike  
Pike Legal Group  
200 S. Buckman Street  
P. O. Box 369  
Shepherdsville, Kentucky 40165-0369  
(502) 955-4400  
COUNSEL FOR CROWN COMMUNICATION, INC.

and



---

W. Brent Rice  
McBrayer, McGinnis, Leslie & Kirkland  
163 W. Short Street  
Lexington, Kentucky 40507-1361  
(606) 231-8780  
COUNSEL FOR NPCR, INC., d/b/a Nextel Partners

## LIST OF EXHIBITS

- A - Copy of Articles of Incorporation & Certificate of Authority
- B - Site Development Plan:
  - Vicinity Map
  - Property Owner Listing
  - 500' Vicinity Map
  - Legal Descriptions
  - Flood Plain Certification
  - Site Plan
  - Vertical Tower Profile
- C - Tower and Foundation Design
- D - Competing utilities, corporations, or persons list
- E - Collocation report
- F - Application to FAA
- G - Application to Kentucky Airport Zoning Commission
- H - Geotechnical Report
- I - Directions to WCF Site
- J - Copy of Real Estate Agreement
- K - Certification of Notification
- L - Copy of Property Owner Notification
- M - Copy of Judge Executive Notice
- N - Copy of Posting Notices
- O - Copy of Radio Frequency Design Search Area
- P - Tower Map for Subject County

**EXHIBIT A**  
**COPY OF ARTICLES OF INCORPORATION & CERTIFICATE OF**  
**AUTHORITY**



OFFICE OF THE SECRETARY OF STATE

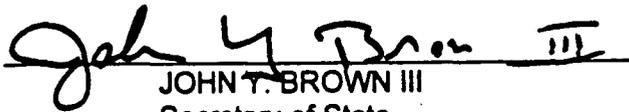
FOREIGN CORPORATION  
CERTIFICATE OF AUTHORIZATION

I, JOHN Y. BROWN III, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,  
CROWN COMMUNICATION INC.

is a corporation organized and existing under the laws of the state or country of  
DELAWARE; that was first authorized to transact business in the Commonwealth of Kentucky on AUGUST 12, 1997.

I further certify that all fees and penalties owed to the Secretary of State have been paid to date; that an Application for Certificate of Withdrawal has not been filed; and that the most recent annual report required by KRS Chapter 271B.16-220 or 273.3671 has been delivered to the Secretary of State on behalf of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal, at Frankfort, Kentucky, this 4TH day of DECEMBER, 1997.



JOHN Y. BROWN III  
Secretary of State  
Commonwealth of Kentucky



JOHN Y. BROWN III  
SECRETARY OF STATE

**CERTIFICATE**

I, JOHN Y. BROWN III, Secretary of State for the Commonwealth of Kentucky, do certify that the foregoing writing has been carefully compared by me with the original record thereof, now in my official custody as Secretary of State and remaining on file in my office, and found to be a true and correct copy of **CERTIFICATE OF AUTHORITY OF**  
CROWN COMMUNICATION INC. FILED AUGUST 12, 1997.

IN WITNESS WHEREOF, I have hereunto  
set my hand and affixed my official seal.

Done at Frankfort this 4TH day of

DECEMBER, 19 97

*John Y. Brown III*  
Secretary of State, Commonwealth of Kentucky

*State of Delaware*  
*Office of the Secretary of State*

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PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF INCORPORATION OF "NPCR, INC.", FILED IN THIS OFFICE ON THE TWENTY-FIRST DAY OF DECEMBER, A.D. 1998, AT 9 O'CLOCK A.M.



A handwritten signature in cursive script that reads "Edward J. Freel".

*Edward J. Freel, Secretary of State*

2982613 8100

991222189

AUTHENTICATION: 9783188

DATE: 06-03-99

CERTIFICATE OF INCORPORATION

OF

NPCR, INC.

**FIRST:** The name of the corporation is NPCR, Inc. (the "Corporation").

**SECOND:** The address of the registered office of the Corporation in Delaware is 9 East Lockerman Street, Dover, Delaware 19901, and the name of the Corporation's registered agent at such address is National Registered Agents, Inc.

**THIRD:** The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law.

**FOURTH:** The total number of shares of stock which the Corporation shall have authority to issue is 200 shares of Common Stock, \$0.01 par value.

**FIFTH:** The name and mailing address of the sole incorporator of the Corporation are as follows:

David P. Dutil, Esq.  
Friedman Kaplan & Sailer LLP  
875 Third Avenue  
New York, New York 10022

**SIXTH:** The following provisions are inserted for purposes of the management of the business and conduct of the affairs of the Corporation and for creating, defining, limiting and regulating the powers of the Corporation and its directors and stockholders:

(a) The number of directors of the Corporation shall be fixed and may be altered from time to time in the manner provided in the Bylaws, and vacancies in the Board of Directors and newly created directorships resulting from any increase in the authorized number of directors may be filled, and directors may be removed, as provided in the Bylaws.

(b) The election of directors may be conducted in any manner approved by the stockholders at the time when the election is held and need not be by ballot.

(c) All corporate powers and authority of the Corporation (except as at the time otherwise provided by law, by this Certificate of Incorporation or by the Bylaws) shall be vested in and exercised by the Board of Directors.

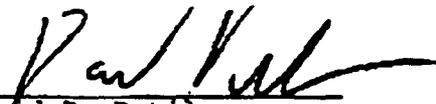
(d) The Board of Directors shall have the power without the assent or vote of the stockholders to adopt, amend, alter or repeal the Bylaws of the Corporation, except to the extent that the Bylaws or this Certification of Incorporation otherwise provide.

EIGHTH: The Corporation reserves the right to amend or repeal any provision contained in this Certificate of Incorporation in the manner now or hereafter prescribed by the laws of the State of Delaware, and all rights herein conferred upon stockholders or directors are granted subject to this reservation.

NINTH: No director shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided, that the foregoing shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit.

TENTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision contained in the statutes of the State of Delaware) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors of the Corporation in accordance with the Bylaws of the Corporation.

IN WITNESS WHEREOF, I do execute this Certificate and affirm and acknowledge, under penalties of perjury, that this Certificate is my act and deed and that the facts stated herein are true, this 21st day of December, 1998.

  
David P. Dutil



**John Y. Brown III**  
**Secretary of State**

**Certificate of Authorization**

I, JOHN Y. BROWN III, Secretary of State of the Commonwealth of Kentucky, do hereby certify that according to the records in the Office of the Secretary of State,

**NPCR, INC.**

, a corporation organized under the laws of the state of Delaware, is authorized to transact business in the Commonwealth of Kentucky, and received the authority to transact business in Kentucky on June 1, 1999.

I further certify that all fees and penalties owed to the Secretary of State have been paid; that an application for certificate of withdrawal has not been filed; and that the most recent annual report required by KRS 271B.16-220 has been delivered to the Secretary of State.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at Frankfort, Kentucky, this 4<sup>th</sup> day of June, 1999.

JOHN Y. BROWN III  
Secretary of State  
Commonwealth of Kentucky

tbates/0475015

State of Delaware  
Office of the Secretary of State

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PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF INCORPORATION OF "NPCR, INC.", FILED IN THIS OFFICE ON THE TWENTY-FIRST DAY OF DECEMBER, A.D. 1998, AT 9 O'CLOCK A.M.



*Edward J. Freel*

Edward J. Freel, Secretary of State

2982613 8100

991222189

AUTHENTICATION: 9783188

DATE: 06-03-99

**EXHIBIT B**

**SITE DEVELOPMENT PLAN:**

**VICINITY MAP**

**PROPERTY OWNER LISTING**

**500' VICINITY MAP**

**LEGAL DESCRIPTIONS**

**FLOOD PLAIN CERTIFICATION**

**SITE PLAN**

**VERTICAL TOWER PROFILE**





**CEM ENGINEERING COMPANY**  
1000 W. LITTLE ROCK AVENUE  
SUITE 100  
WILLIAMSBURG, KY 40399  
PHONE: (502) 744-2000  
FAX: (502) 744-2005

**I. Alignment Company**  
1000 W. LITTLE ROCK AVENUE  
SUITE 100  
WILLIAMSBURG, KY 40399  
PHONE: (502) 744-2000  
FAX: (502) 744-2005

SITE NUMBER: JMKY / KT100-A  
SITE NAME: SUTTON

SITE ADDRESS: 1111 W. WILIAMSBURG, KY 40319  
ADJ.:  
LEASE AREA = 10,000 SQ. FT.

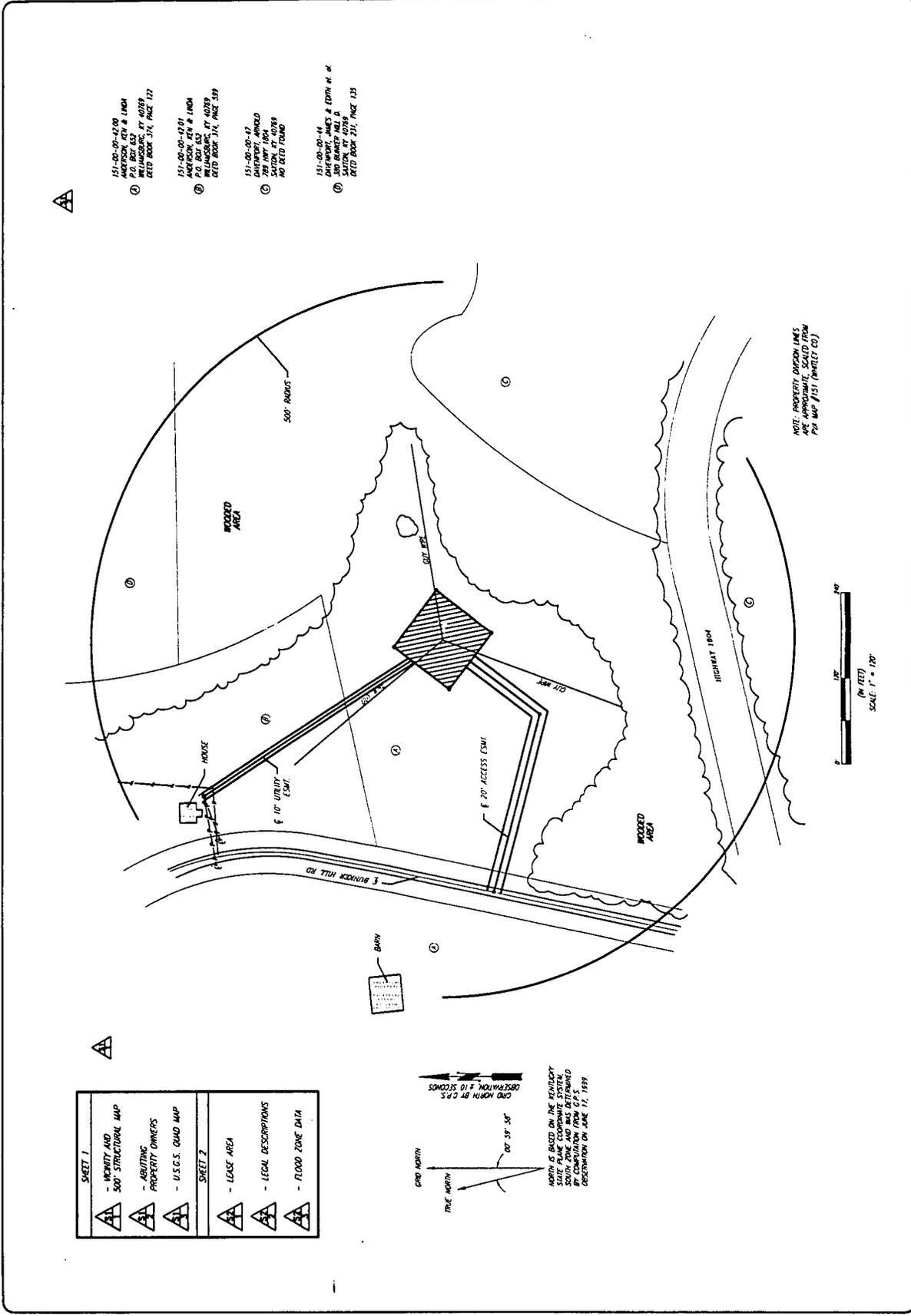
PROPERTY OWNER: SCOTT & LINDA ANDERSON  
1111 W. WILIAMSBURG, KY 40319

TAX MAP NUMBER: MAP 131  
PARCEL NUMBER: 42

SOURCE OF TITLE: WHITLEY CO. VOL. 374, PG. 1  
DRAWN BY: WD  
CHECKED BY: TA/AM

No.	REVISION/ISSUE	DATE
1	ZONING REVIEW	7/14/99
2	ZONING FINAL	08/11/99

TITLE: **500' RADIUS**  
SHEET: **C-1**



- 151-00-00-0100  
P.O. BOX 632  
WILLIAMSBURG, KY 40399  
DEED BOOK 374, PAGE 122
- 151-00-00-0101  
ANDERSON, LINDA & LINDA  
1111 W. WILIAMSBURG, KY 40319  
DEED BOOK 374, PAGE 599
- 151-00-00-0102  
DANFORTH, JAMES & EDITH M. JR.  
500 BANNER HILL &  
SUTTON, KY 40319  
DEED BOOK 211, PAGE 135

NOTE: PROPERTY OWNERS LINES ARE APPROXIMATE. SCALED FROM P.P. MAP #151 (WHITLEY CO.)

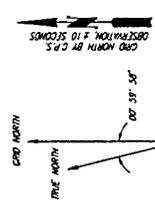


**SHEET 1**

- VICINITY AND 500' STRUCTURAL MAP
- ABUTTING PROPERTY OWNERS
- U.S.G.S. QUAD MAP

**SHEET 2**

- LEASE AREA
- LEGAL DESCRIPTIONS
- FLOOD ZONE DATA



MAP IS BASED ON THE KENTUCKY STATE PLANE COORDINATE SYSTEM. SOUTH ZONE AND WAS DETERMINED OBSERVATION ON JUNE 11, 1999.







SITE NUMBER: 3007 / ETS100-A

SITE NAME: SATON

SITE ADDRESS: 100 SUMNER HILL RD. WILMINGTON, KY 40399

AREA: LEASE AREA = 10,000 SQ. FT.

PROPERTY OWNER: KENNETH & LYNN ANDERSON P.O. BOX 637 WILMINGTON, KY 40399

TAX MAP NUMBER: MAP 131

PARCEL NUMBER: 1 42

SOURCE OF TITLE: WHOLEY CO., VOL. 374, Pg. 122

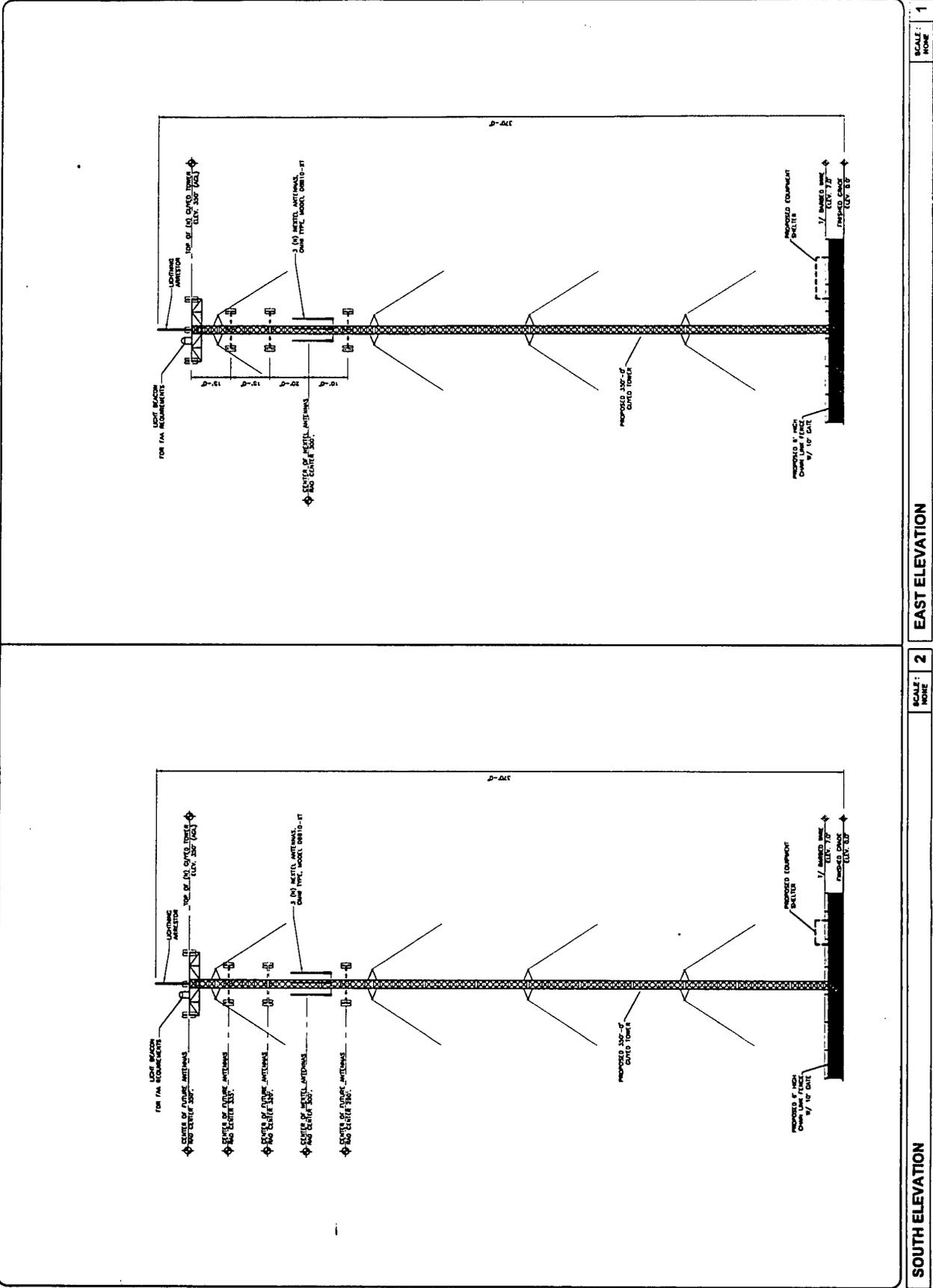
DRAWN BY: VO

CHECKED BY: JY/ME

No	REVISION/ISSUE	DATE
1	TOWING REVIEW	7/11/99
2	TOWING FINAL	08/11/99

TITLE: SOUTH & EAST ELEVATIONS

SHEET: A-2



SCALE: NONE

1 EAST ELEVATION

2 SOUTH ELEVATION

SCALE: NONE



**CROWN COMMUNICATIONS INC.**  
 1101 BUCKNER HWY  
 SUITE 200  
 WILMINGTON, DE 19804  
 (302) 441-8000  
 (302) 240-0043 FAX



**GEN ENGINEERING COMPANY**  
 1070 STANLEY  
 WILMINGTON, DE 19804  
 Phone: (302) 481-8223  
 Fax: (302) 581-8399

SITE NUMBER: 3000 / 20100-A  
 SITE NAME: SAKTON

SITE ADDRESS:  
 100 BANKER HILL RD.  
 WILMINGTON, DE 19808

AREA:  
 LEASE AREA = 10,000 SQ. FT.

PROPERTY OWNER:  
 KENNETH & LINDA ANDERSON  
 P.O. BOX 837  
 WILMINGTON, DE. 19809

TAX MAP NUMBER:  
 MAP 151

PARCEL NUMBER:  
 141

SOURCE OF TITLE:  
 WHITLEY Co., VOL. 374, Pg. 122

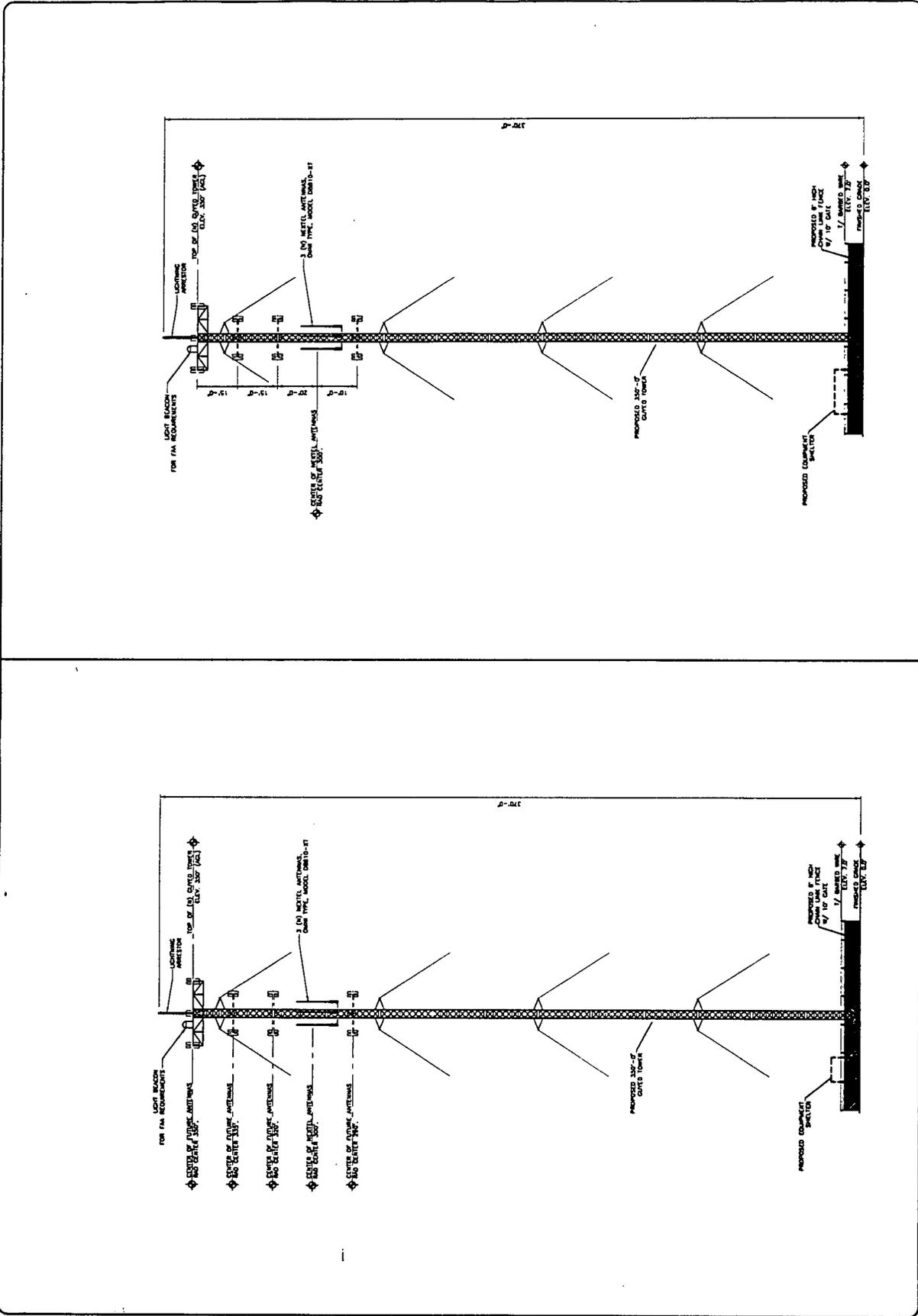
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CHECKED BY:  
 TA/ME

No	REVISION/ISSUE	DATE
1	ZONING REVIEW	7/14/93
2	ZONING FINAL	08/11/93

TITLE  
**NORTH & WEST ELEVATIONS**

SHEET  
**A-3**



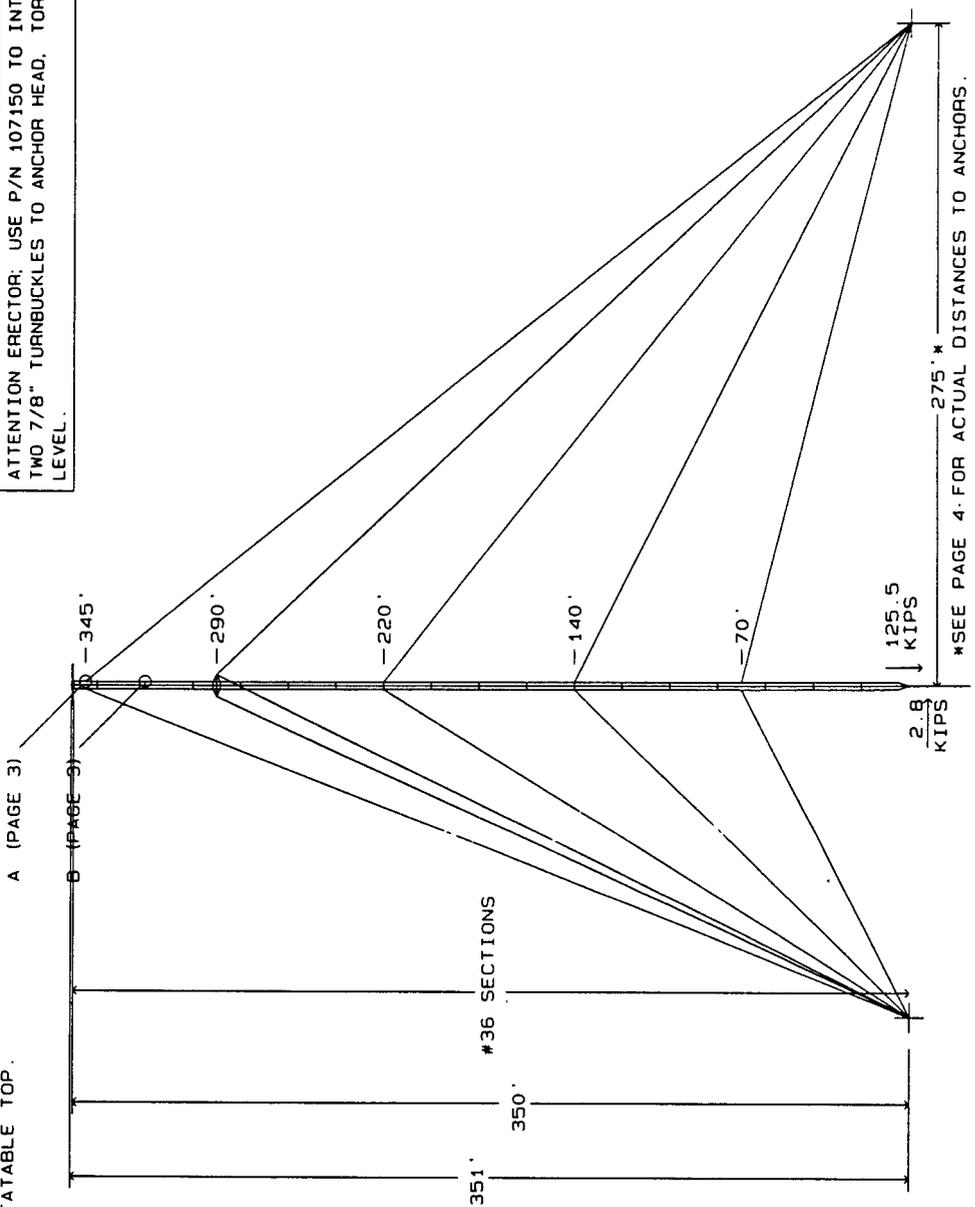
SCALE: NONE | 2 | WEST ELEVATION | 1 | SCALE: NONE

File # 10474787-Crown-Comm-GenEng-Cor-Tower-RF-2100-A-SAKTON-A2.dwg 08/11/93 14:43 dillon 93

**EXHIBIT C**  
**TOWER AND FOUNDATION DESIGN**

ATTENTION ERECTOR: USE P/N 107150 TO INTERFACE TWO 7/8" TURNBUCKLES TO ANCHOR HEAD, TORQUE ARM LEVEL.

SHOP WELD TOP PLATE P/N 120608 AT TOP OF TOP SECTION. SEE PAGE 3 FOR DETAILS OF ROTATABLE TOP.



TOWER ELEVATION



1999

RECEIVED  
AUG 13 1999

BY:.....

CROWN COMMUNICATIONS  
SAXTON (ECHO 304KY), KY  
# 36 X 351' GUYED TOWER



1545 Pidco Dr.  
Plymouth, IN 46563-0128  
219-936-4221

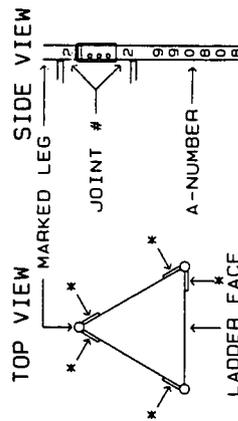
REV	DESCRIPTION OF REVISIONS	INI	DATE
A	ADDED FOUNDATIONS PER SOIL REPORT	WRH	08/12/1999

From: 85684.DFT - 08/10/1999 10: 47  
Printed from: 2052261A.DWG - 08/12/1999 10: 10 @ 08/12/1999 10: 54

APPROVED/ENG.	WRH	08/12/1999
APPROVED/FOUND	N/A	
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ENG. FILE NO.	A-9908083A	
ARCHIVE	0-85684	

DRAWING NO. 205226-B  
PAGE 1 OF 10

SECTION DATA							LEG CONNECTION		
SPAN HEIGHT	SEC#	LEN	LEGS	BRACES	PART#	BOLT DIAM	BOLT LEN	BOLTS /SEC	
340' - 350'	36	10'	1- 3/4"	5/8"	104800		4"	12	
320' - 340'	36	20'	1- 3/4"	5/8"	104800		4"	12	
280' - 320'	36	20'	1- 3/4"	3/4"	104497		4"	12	
20' - 280'	36	20'	1- 3/4"	5/8"	104800		4"	12	
0' - 20'	36	20'	1- 3/4"		133221		4"	12	



THE MARKED LEG OF EACH SECTION IS STAMPED WITH THE TOWER SERIAL # AT THE TOP OF EACH SECTION AND THE JOINT # AT EACH END OF THE SECTION. JOINTS ARE NUMBERED CONSECUTIVELY STARTING WITH 1 AT THE TOP OF THE BASE SECTION. ASSEMBLE TOWER WITH MARKED LEGS TOGETHER IN PROPER SEQUENCE.

\* INDICATES RELATIVE POSITION OF LINE HANGING BRACKETS P/N 131773 AT NOMINAL 3' VERTICAL SPACING.



CROWN COMMUNICATIONS  
SAXTON (ECHO 304KY), KY  
# 36 X 351' GUYED TOWER

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**GUY HARDWARE DETAIL**

HT.	GUY SIZE	TORQ LUG PART#	SHCKL SIZE	THMBLE SIZE	TURN-BCKLE	PREFORM	INITIAL TENSION **					
							@-30°F@	0°F@	30°F@	60°F@	90°F@	120°F@
345'	9/16" EHS.	105062	3/4"	5/8"	7/8"	BG-2116	4281#	4016#	3757#	3500#	3255#	3026#
290'	9/16" EHS.	12	3/4"	5/8"	7/8"	BG-2116	4445#	4129#	3812#	3500#	3205#	2932#
220'	9/16" EHS.	105062	3/4"	5/8"	7/8"	BG-2116	4724#	4297#	3884#	3500#	3135#	2800#
140'	1/2" EHS.	105062	5/8"	5/8"	7/8"	BG-2115	3940#	3502#	3082#	2690#	2333#	2006#
70'	1/2" EHS.	105062	5/8"	5/8"	7/8"	BG-2115	4195#	3655#	3156#	2690#	2271#	1906#

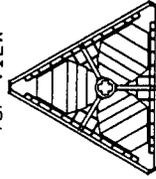
\*\* TENSIONS SHOWN ARE FOR GUY LINE (A). INTERPOLATION IS PERMITTED FOR OTHER TEMPERATURES.  
TOLERANCE IS +/- 10% OF INITIAL TENSION SHOWN.

**GUY LENGTH DATA**

HT.	GUY SIZE	# GUYS	THEORETICAL LENGTH ***		
			(A) NORTHEAST	(B) SOUTHWEST	(C) NORTHWEST
345'	9/16" EHS.	3	446.7'	474.8'	446.7'
290'	9/16" EHS.	6	404.8'	431.1'	404.8'
220'	9/16" EHS.	3	356.6'	379.8'	356.6'
140'	1/2" EHS.	3	311.8'	329.8'	311.8'
70'	1/2" EHS.	3	285.6'	296.9'	285.6'

\*\*\* THEORETICAL LENGTH SHOWN IS NOT THE CUT LENGTH.  
ADD 5% TO 10% TO VALUE LISTED TO ARRIVE AT CUT LENGTH.  
QUANTITY OF CABLE SHIPPED IS THEORETICAL LENGTH +10%.

TOP VIEW

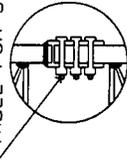


SIDE VIEW

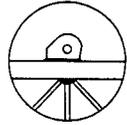


ROTATABLE TOP  
(REF ASSEMBLY  
DWG # 130555)

A-325 BOLTS  
SEE LEG CONNECT  
TABLE FOR SIZE



VIEW B  
TYPICAL GUY  
CONNECTION LUG



VIEW A  
TYPICAL GUY  
CONNECTION LUG



AUG 12 1999

CROWN COMMUNICATIONS  
SAXTON (ECHO 304KY), KY  
# 36 X 351' GUYED TOWER

APPROVED/ENG. WRH 08/12/1999

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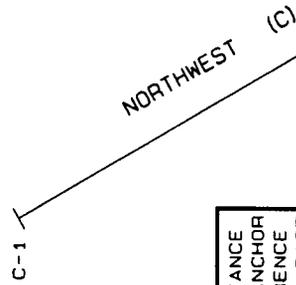
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ARCHIVE Q-85684



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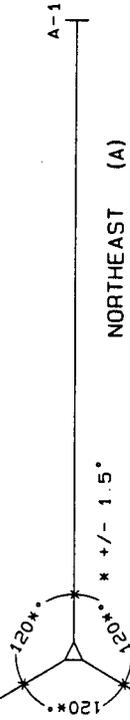
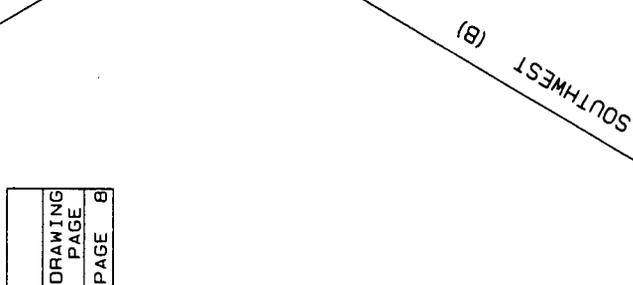
DRAWING NO. 205226-B  
PAGE 3 OF 10

NORTHWEST ANCHORS (C)					
ANC #	HORIZ DIST	VERT DIST	HORIZONTAL FORCE	UPLIFT FORCE	DRAWING PAGE
C-1	275'	-7'	63.2 KIPS	50.4 KIPS	PAGE B



NOTE: THE HORIZONTAL DISTANCE IS THE DISTANCE MEASURED FROM THE TOWER BASE PIN TO THE ANCHOR HEAD. THE VERTICAL DISTANCE IS THE DIFFERENCE BETWEEN THE GROUND ELEVATION AT THE TOWER BASE AND THE GROUND ELEVATION AT THE ANCHOR HEAD.

SOUTHWEST ANCHORS (B)					
ANC #	HORIZ DIST	VERT DIST	HORIZONTAL FORCE	UPLIFT FORCE	DRAWING PAGE
B-1	275'	-42'	62.3 KIPS	56.8 KIPS	PAGE B



THIS IS NOT THE PLOT PLAN! THIS DIAGRAM REPRESENTS THE DATA SUPPLIED TO PIRROD UPON WHICH THIS TOWER DESIGN IS BASED. IF THE INFORMATION ON THIS PAGE IS NOT CORRECT, CONTACT THE FACTORY FOR FURTHER ANALYSIS AT (219) 936-4221 EXT. 5299. THE OWNER SHOULD BE CONSULTED TO CONFIRM THE ACTUAL TOWER ORIENTATION.

NORTHEAST ANCHORS (A)					
ANC #	HORIZ DIST	VERT DIST	HORIZONTAL FORCE	UPLIFT FORCE	DRAWING PAGE
A-1	275'	-7'	63.2 KIPS	50.4 KIPS	PAGE B



1999

From: 85684.OFT - 08/10/1999 10: 47		CROWN COMMUNICATIONS SAXTON (ECHO 304KY), KY # 36 X 351' GUYED TOWER	
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APPROVED/ENG. WRH	08/12/1999	APPROVED/FOUND. WRH	08/12/1999
DRAWN BY TRP		ENG. FILE NO. A-9908083A	DRAWING NO. 205226-B
		Q-85684	PAGE 4 OF 10

**GENERAL NOTES**

1. TOWER DESIGN CONFORMS TO STANDARD EIA/TIA-222-F FOR 70 MPH BASIC WIND SPEED WITH 0.50" RADIAL ICE WITH LOAD DUE TO WIND REDUCED BY 25% WHEN CONSIDERED SIMULTANEOUSLY WITH ICE. TOWER DESIGN CONFORMS TO STANDARD EIA/TIA-222-F FOR 70 MPH BASIC WIND SPEED WITH NO ICE.
2. MATERIAL: (A) SOLID RODS CONFORM TO ASTM A-572 GRADE 50 REQUIREMENTS.  
 (B) ANGLES CONFORM TO ASTM A-36 REQUIREMENTS.  
 (C) PIPE CONFORMS TO ASTM A-53 TYPE E, GRADE B REQUIREMENTS. (MIN YIELD STRENGTH=42 KSI)  
 (D) ALL STEEL PLATES CONFORM TO ASTM A-36 REQUIREMENTS.
3. FINISH: HOT DIPPED GALVANIZED AFTER FABRICATION.
4. ANTENNAS:  
 TOP - TWELVE ALP9011 ANTENNAS ON A LOW PROFILE PLATFORM WITH 1 5/8" LINES.  
 335' - TWELVE ALP9011 ANTENNAS ON THREE T-FRAMES WITH 1 5/8" LINES.  
 320' - TWELVE ALP9011 ANTENNAS ON THREE T-FRAMES WITH 1 5/8" LINES.  
 305' - TWO 8' HIGH PERFORMANCE DISHES WITH EM63.
5. MIN. WELDS 5/16" UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS SPECS.
6. ALL BOLTS AND NUTS MUST BE IN PLACE BEFORE THE ADJOINING SECTION(S) ARE INSTALLED.
7. ALL A-325 BOLTS ARE TO BE TIGHTENED TO A SNUG TIGHT CONDITION AS DEFINED BY AISC SPECIFICATION UNLESS OTHERWISE NOTED. A MORE QUANTITATIVE ALTERNATIVE APPROACH TO ACHIEVING A SNUG TIGHT CONDITION IS TO TIGHTEN USING THE TORQUE VALUES FROM DRAWING 123107-A.
8. EIA GROUNDING FOR TOWER.
9. DUAL LIGHT KIT (351' - 700')
10. ALL TRANSMISSION LINES MUST BE PLACED ON PIROD SUPPLIED TRANSMISSION LINE BRACKETS.



1999

CROWN COMMUNICATIONS  
 SAXTON (ECHO 304KY), KY  
 # 36 X 351' GUYED TOWER

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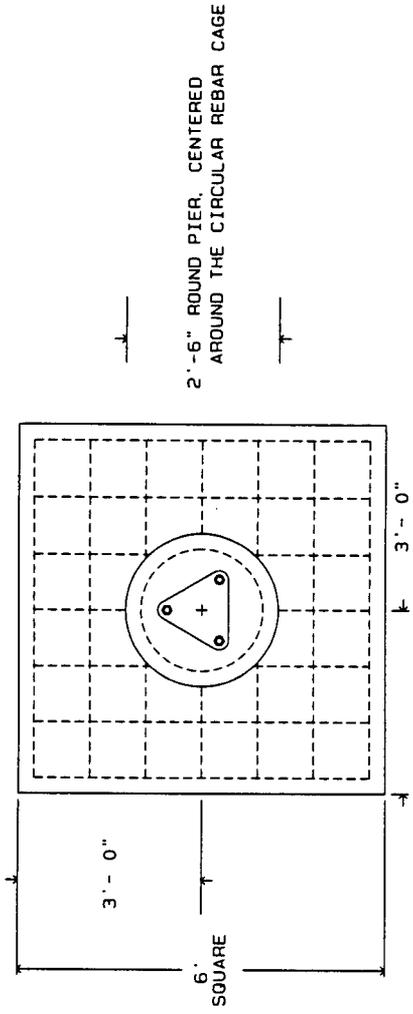
**FOUNDATION NOTES**

1. SOIL AS PER REPORT BY PSI, INC., DATED: 7/30/99 (FILE: 358-95143)
2. CONCRETE TO BE 3000 PSI @28 DAYS. REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS. CONCRETE INSTALLATION TO CONFORM TO ACI-318 BUILDING REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH FREE OF WATER AND ALL FOREIGN OBJECTS AND MATERIALS. A MINIMUM OF THREE INCHES OF CONCRETE SHALL COVER ALL REINFORCEMENT. WELDING OF REBAR NOT PERMITTED.
3. ALL FILL SHOULD BE PLACED IN LOOSE LEVEL LIFTS OF NO MORE THAN 8" THICK. FILL MATERIALS SHOULD BE CLEAN AND FREE OF ORGANIC AND FROZEN MATERIALS OR ANY OTHER DELETERIOUS MATERIALS. COMPACT FILL TO 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698.
4. A COLD JOINT IS PERMISSIBLE, AT THE TOWER BASE ONLY, UPON CONSULTATION WITH PIROD. ALL COLD JOINTS SHALL BE COATED WITH BONDING AGENTS PRIOR TO SECOND POUR.
5. DIFFICULTIES DURING EXCAVATION MAY ARISE DUE TO THE PRESENCE OF SHALLOW BEDROCK. PNEUMATIC HAMMERS, RIPPERS, AND/OR BLASTING MAY BE REQUIRED TO REMOVE MATERIAL FROM THE EXCAVATION.
6. A CONCRETE MAT MAY BE USED TO LEVEL THE BEARING SURFACE. THE CONCRETE IN THE LEVELING MAT IS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS AND CAN NOT EXCEED 12" IN THICKNESS.



1999

		CROWN COMMUNICATIONS SAXTON (ECHO 304KY), KY # 36 X 351' GUYED TOWER	
		APPROVED/ENG. WRH 08/12/1999	 1545 Pidco Dr. Plymouth, IN 46563-0128 219-936-4221
A	ADDED FOUNDATIONS PER SOIL REPORT	WRH	
REV	DESCRIPTION OF REVISIONS	INI	DATE
From: 85684.DFT - 08/12/1999 10:18		ENG. FILE NO.	A-9908083A
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		DRAWING NO.	205226-B
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2" - 6" ROUND PIER, CENTERED  
AROUND THE CIRCULAR REBAR CAGE

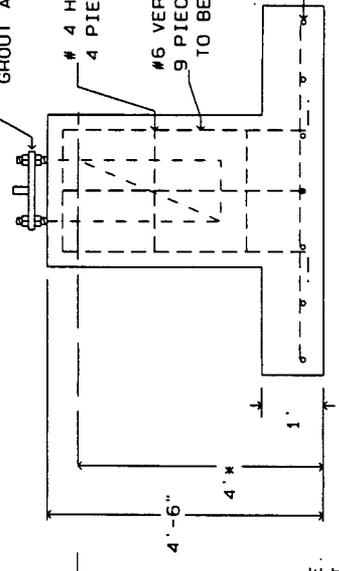
CAGE P/N 107261 CENTERED IN PIER.  
INSTALL WITH 6" OF THREADS EXPOSED.  
FOUNDATION PLATE P/N 107260.  
GROUT AFTER LEVELING PLATE - BEFORE ERECTING TOWER.

# 4 HORIZONTAL TIES - SEE (C) ON PAGE 8.  
4 PIECES REQ., EQUALLY SPACED.

# 6 VERTICAL REBAR, SEE (B) ON PAGE 8.  
9 PIECES REQ., EQUALLY SPACED.  
TO BE PLACED INSIDE TIES.

# 4 HORIZONTAL BARS - SEE (A) ON PAGE 8.  
7 EACH WAY, EVENLY SPACED.

NOTE: ALL REBAR IS EQUALLY SPACED AND  
REQUIRES MIN. 3" CONCRETE COVER.



FINISHED GRADE

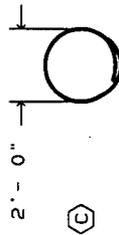
\* DEPTH SHOWN IS  
MINIMUM ALLOWABLE.  
ACTUAL DEPTH MUST  
BE MIN. 6" BELOW  
LOCAL FROST LEVEL.

**TOWER BASE FOUNDATION**  
2.0 CU. YDS. CONCRETE REQUIRED

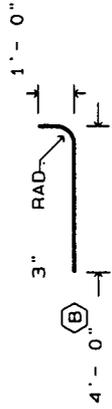


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A	ADDED FOUNDATIONS PER SOIL REPORT	WRH	08/12/1999		
REV	DESCRIPTION OF REVISIONS	INI	DATE	DRAWN BY	TRP
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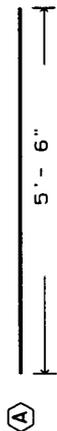
#4 REBAR - 4 PIECES REQUIRED TOTAL



LAP DIMENSION: 1'-4-1/2"  
 PLACE REBAR RINGS SO THAT LAPS ON  
 ADJACENT RINGS ARE 180 DEGREES APART  
 APPROX UNBENT LENGTH = 7'-8"  
 APPROX WT = 5.1# EACH, 20# TOTAL



#6 REBAR - 9 PIECES REQUIRED TOTAL  
 APPROX UNBENT LENGTH = 4'-10-3/4"  
 APPROX WT = 7.4# EACH, 67# TOTAL



#4 REBAR - 14 PIECES REQUIRED TOTAL  
 APPROX WT = 3.7# EACH, 51# TOTAL

TOTAL APPROXIMATE REBAR WEIGHT = 138#  
 REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS

TOWER BASE FOUNDATION  
 REBAR DETAIL - NOT TO SCALE



CROWN COMMUNICATIONS  
 SAXTON (ECHO 304KY), KY  
 # 36 X 351' GUYED TOWER

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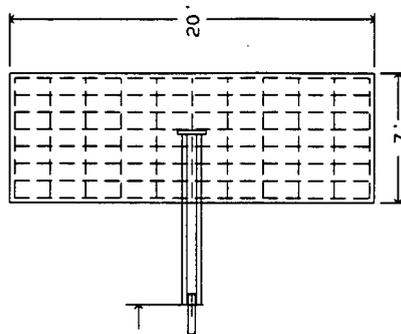
REV	DESCRIPTION OF REVISIONS	INI	DATE
A	ADDED FOUNDATIONS PER SOIL REPORT	WRH	08/12/1999

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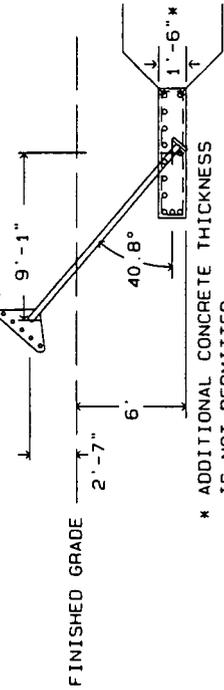
VERTICAL CENTERLINE OF ANCHOR HEAD MUST BE PLUMB  
 +/- 2 DEGREES. ANCHOR RODS MUST BE STRAIGHT. CENTER-  
 LINE OF ANCHOR AND RODS MUST BE IN LINE WITH CENTER-  
 LINE OF TOWER +/- 1/2 DEGREE (ALL ANCHORS.)

SEE PAGE 4 FOR ACTUAL  
 ← DISTANCE TO TOWER BASE  
 AND RELATIVE HEIGHT.



ALL REBAR IS EQUALLY SPACED AND  
 REQUIRES MIN. 3" CONCRETE COVER.  
 FOR GUY WIRE INSTALLATION SEE  
 DRAWING #104834-B.  
 FOR GUY HARDWARE SIZES SEE TABLE  
 ON PAGE 3.

P/N 125967 (ROD LENGTH=12'-6".)



#7 HORIZONTAL BARS. SEE (A) ON PAGE 10.  
 8 EA IN TOP  
 3 EA IN BOTTOM  
 1 EA IN FRONT (IN ADDITION TO THOSE  
 IN THE TOP AND BOTTOM CORNERS.)  
 11 EA #4 BARS FORMED INTO RECTANGLE.  
 SEE (B) ON PAGE 10.

GUY ANCHORS AT LOCATIONS A-1, B-1 AND C-1  
 3 REQUIRED - 7.8 CU. YDS. CONCRETE REQUIRED EACH



CROWN COMMUNICATIONS  
 SAXTON (ECHO 304KY), KY  
 # 36 X 351' GUY ANCHORS

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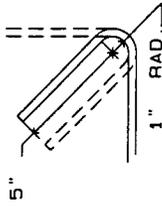


REV	DESCRIPTION OF REVISIONS	INI	DATE
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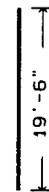
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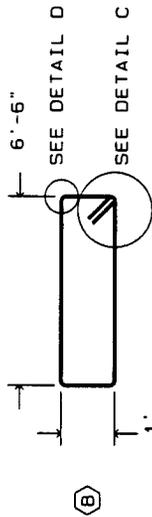
DETAIL D  
TYPICAL 90° BEND



DETAIL C  
TYPICAL 135° HOOK



#7 REBAR - 36 PIECES REQUIRED TOTAL.  
APPROX WT = 39.9# EACH, 1436# TOTAL



#4 REBAR - 33 PIECES REQUIRED TOTAL.  
FORMED INTO A RECTANGLE WITH 135° HOOK AT BOTH ENDS  
APPROX UNBENT LENGTH = 15'-7-7/8"  
APPROX WT = 10.5# EACH, 347# TOTAL

TOTAL APPROXIMATE REBAR WEIGHT = 1783#  
REINFORCING BAR TO CONFORM TO ASTM A615 GRADE 60 SPECIFICATIONS.

GUY ANCHORS AT LOCATIONS A-1, B-1 AND C-1  
REBAR DETAIL - NOT TO SCALE



CROWN COMMUNICATIONS  
SAXTON (ECHO 304KY), KY  
# 36 X 351' GUY ANCHORS

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**EXHIBIT D**  
**COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST**

**COMPETING UTILITIES, CORPORATIONS, OR PERSONS LIST:**

1. American Tower
2. APEX
3. Tritel Communications
4. Nextel Partners
5. Spectra Site
6. CommNet
7. GTE Mobilenet, Inc.
8. BellSouth Mobility, Inc.
9. BellSouth Wireless Cable, Inc.
10. NextelWave
11. Powertel Kentucky, Inc.
12. SBA
13. Sprint PCS

**EXHIBIT E  
COLLOCATION REPORT**

Exhibit E  
Collocation Report for  
Crown Communications  
304KY-Saxton

There are no commercial towers or structures suitable for collocation within a two mile radius of the proposed Saxton tower.

**EXHIBIT F  
APPLICATION TO FAA**



**EXHIBIT G**  
**APPLICATION TO KENTUCKY AIRPORT ZONING COMMISSION**

<b>1. NATURE OF PROPOSAL</b>			<b>2. DESCRIPTION OF STRUCTURE</b>	
<b>A. TYPE</b> <input checked="" type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> ALTERATION	<b>B. CLASS</b> <input checked="" type="checkbox"/> PERMANENT <input type="checkbox"/> TEMPORARY	<b>C. WORK SCHEDULE</b> BEGIN <u>08/13/99</u> END <u>09/13/99</u>	Please see attached.	
<b>3A. APPLICANT - NAME, ADDRESS &amp; TELEPHONE</b> Christine A. Verre/Regulatory Administrator Crown Communications Inc. 375 Southpointe Blvd. Canonsburg, PA 15317 PH: (724) 416-2247 FAX: (724) 416-2254				
<b>B. REPRESENTATIVE OF APPLICANT - NAME, ADDRESS &amp; TELEPHONE</b> Christine A. Verre/Regulatory Administrator Crown Communications Inc. 375 Southpointe Blvd. Canonsburg, PA 15317 PH: (724) 416-2247 FAX: (724) 416-2254				
<b>4. LOCATION OF STRUCTURE</b>			<b>5. HEIGHT &amp; ELEVATION</b>	
<b>A. GEOGRAPHIC COORDINATES (NEAREST SECOND)</b>	<b>B. NEAREST KY CITY</b>	<b>C. NEAREST KY AIRPORT</b>	<b>A. SITE ELEVATION (ABOVE MEAN SEA LEVEL)</b>	
LATITUDE 36°38'08.55"	Williamsburg	181:MC CREARY COUNTY	1072'	
LONGITUDE 84°06'06.65"	(1) DISTANCE TO AB	(1) DISTANCE TO RUNWAY 14.4339 NM to ARP	<b>B. HEIGHT OF STRUCTURE, INCLUDING APPURTENANCES AND LIGHTS (ABOVE GROUND LEVEL)</b>	375'
	(2) DIRECTION TO AB	(2) DIRECTION TO AIRPORT 105 degrees	<b>C. OVERALL HEIGHT (AMSL) (A+B)</b>	1447'
<b>6. OBSTRUCTION MARKING &amp; LIGHTING</b>			<b>YES</b>	<b>NO</b>
<b>A. MARKED FOR THE PROTECTION OF AIR NAVIGATION (FLAGS, SPHERES, ETC.)</b>				
<b>B. OBSTRUCTION MARKED IN ACCORDANCE WITH 49CFR 135.100 (FAA AC 70/460-1)</b>			X	
<b>C. OBSTRUCTION LIGHTED IN ACCORDANCE WITH 49CFR 135.100 (FAA AC 70/460-1)</b>			X	
<b>7. HAS "NOTICE OF CONSTRUCTION OR ALTERATION" (FORM 7460-1) BEEN FILED WITH THE FEDERAL AVIATION ADMINISTRATION? IF SO, WHEN?</b>				
<b>8. CERTIFICATION - I HEREBY CERTIFY THAT ALL THE ABOVE STATEMENTS MADE BY ME ARE TRUE, COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.</b>				
BY <u>Christine A. Verre/Regulatory Administrator</u> <i>C.A. Verre</i> DATE <u>07/13/99</u> NAME (PRINTED), SIGNATURE & TITLE				
<b>PENALTIES - PERSONS FAILING TO COMPLY WITH KENTUCKY REVISED STATUTES AND KENTUCKY AIRPORT ZONING COMMISSION ADMINISTRATIVE REGULATIONS ARE LIABLE FOR FINES OR IMPRISONMENT AS SET FORTH IN KRS 189.9903. NON-COMPLIANCE WITH FEDERAL AVIATION ADMINISTRATION REGULATIONS MAY RESULT IN FURTHER PENALTIES</b>				
<b>COMMISSION ACTION</b>	___ CHAIRMAN, KAZC (OR) ___ ADMINISTRATOR, KAZC			
<b>APPROVED</b> _____	DATE _____			
<b>DISAPPROVED</b> _____				

**EXHIBIT H  
GEOTECHNICAL REPORT**

## **GEOTECHNICAL ENGINEERING SERVICES REPORT**

**Proposed Guy Tower  
Site ID: KY-5100  
Whitley County  
Saxton, Kentucky**

**PSI File No. 358-95143**

**PREPARED FOR**

**Mr. Don Spencer  
National Assessment Corporation  
1331 Union Avenue, Suite 1025  
Memphis, Tennessee 38104**

**July 30, 1999**

**BY**

**PROFESSIONAL SERVICE INDUSTRIES, INC.**

**Tracey Reagan, E.I.  
Project Manager  
Geotechnical Services**

**Dennis A. Huckaba, P.E.  
Department Manager  
Geotechnical Services**

**Ralph Reuss  
Vice-President-Engineering**

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**APPENDIX      BORING LOCATION PLAN**  
**GENERAL NOTES**  
**BORING LOGS**

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## PROJECT INFORMATION

### Project Authorization

Professional Service Industries, Inc. (PSI) has completed a geotechnical exploration for the proposed Guy Tower (ID: KY-5100) in Saxton, Kentucky. Our services were authorized by Mr. Don Spencer of the National Assessment Corporation.

### Project Description

Project information was provided by Mr. Don Spencer of National Assessment Corporation. We have also been furnished with a fax drawing titled "Saxton/KY-5100-A" that depicts the tower location. We understand that the proposed construction will consist of a 375-foot tall tower with 3 guy supports. Based on the other similar tower projects, uplift and axial loading may reach 200 to 250 kips. Specific load information should be provided for review by PSI once the information is available.

The geotechnical recommendations presented in this report are based on the available project information, tower location, and the subsurface materials described in this report. If any of the noted information is incorrect, please inform PSI in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

### Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site to develop recommendations for foundation design parameters and construction. Our scope of services included drilling 4 soil test borings at the site to depths of about 20 to 35 feet below the surface or refusal, select laboratory testing, and preparation of this geotechnical report. This report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and presents recommendations for foundation design parameters and construction.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air, on, or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Prior to development of this site, an environmental assessment is advisable.

## SITE AND SUBSURFACE CONDITIONS

### Site Location and Description

The site for the proposed 375-foot high guy tower is located east of Interstate 75 in Saxton, Kentucky. The site is in Whitley County, north of Highway 1804 and east of Bunker Hill Road.

At the time of our exploration, the site surface was covered in 2-foot high grass. The site sloped downward from north to south with approximately 10 feet of surface relief.

The surficial soils were firm at the time of the field exploration. Our truck mounted drill rig experienced no difficulty in moving about the site.

### Subsurface Conditions

The site subsurface conditions were explored with 4 soil test borings. The boring locations and depths were selected and located in the field by a representative of GEM Engineering Company. The borings were advanced utilizing hollow stem auger drilling methods and soil samples were routinely obtained during the drilling process. Drilling and sampling techniques were accomplished generally in accordance with ASTM procedures. Select soil samples were tested in the laboratory to determine material properties for our evaluation. Laboratory testing was accomplished generally in accordance with ASTM procedures.

The 4 borings were drilled to predetermined termination depths of about 35.5 feet at boring B-1 and about 20.5 feet at borings B-2 through B-4.

The subsurface conditions identified by the 4 borings primarily included 8 inches of topsoil underlain by lean to fat clays with some weathered shale layers, to depths of about 9 feet. Standard penetration resistance N-values within these soils ranged from 7 to 59 blows per foot, indicating soil consistencies of firm to hard. The moisture content of these soils ranged from 14 to 29 percent, with the majority in the twenties. Unconfined compressive strengths, as measured by a calibrated pocket penetrometer, indicated that these soils have relative strength values ranging from 2.5 tsf to 4.5+ tsf. These soils were visually classified as CL and CH according to the Unified Soil Classification System.

Weathered shale with some clay layers was encountered in all 4 borings at depths of about 9 feet to boring termination depths. Standard penetration resistance N-values within the shale ranged from 32 to 60 blows per foot, indicating consistencies of hard. Several sampling attempts of the shale encountered penetration refusal materials resulting in blow counts of 50 or more. The moisture content of the shale ranged from 9 to 27 percent, with the majority in the teens.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the appendix should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on these boring logs. The samples that were not altered by laboratory testing will be retained for 60 days from the date of this report and then will be discarded.

#### Groundwater Information

The 4 borings were dry upon completion of drilling, indicating that the continuous groundwater level at the site at the time of the exploration was either below the terminated depth of the borings, or that the soils encountered were relatively impermeable. Although groundwater was not encountered at this time, it is possible for a groundwater table to be present or fluctuate in the borings within the depths explored during other times of the year depending upon climatic and rain fall conditions. Additionally, discontinuous zones of perched water may exist within the overburden materials.

## RECOMMENDATIONS

### Foundation Design Parameters

At the tower base, a conventional spread footing foundation may be designed for an allowable soil bearing pressure of 6,000 psf under combined dead and live loads. The depth of footing should be a minimum of 4 feet.

Uplift and lateral capacity, depending on load magnitude, can be developed by anchor blocks or drilled piers. Design parameters for each type are as follows:

#### *Anchor Blocks*

Depth Range Ft.	Maximum Intermittent Loads		Continuous Loads	
	$\phi$	C psf	$\phi'$	C' psf
0-2	Neglect	Neglect	Neglect	Neglect
2-9	0	3000	27	200
9-20.5	0	4500	25	300

Where:

$\phi$  = Angle of Shear

$\phi'$  = Angle of Internal Friction

C = Cohesion (psf)

Total Density 120 pcf

Groundwater below 20 ft.

#### *Drilled Piers*

Depth Range Ft.	Shear Strength psf	Ultimate Friction psf	Lateral Modulus k, pcf	Strains Factor $E_{50}$
0-2	Neglect	Neglect	Neglect	Neglect
2-9	3000	1650	400	0.005
9-20.5	4500	2500	800	0.004

A factor of safety of 2.0 should be applied to all loads for definition of anchor block or drilled pier dimensions. Concrete with a slump of 7 to 9 inches should be used for drilled piers.

Other structures may be supported on conventional spread footing foundations bearing on stiff to very stiff natural soils. Spread footings can be designed for an allowable soil bearing pressure of 3,000 psf. Minimum dimensions of 24 inches for column footings and 18 inches for continuous footings should be used in foundation design to minimize the possibility of a local bearing capacity failure. Footings should be located at a depth of at least 18 inches below the final exterior grade to provide adequate frost protection.

The foundation excavations should be observed by a representative of PSI prior to steel or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the materials discussed in the report. Soft or loose soil zones encountered at the bottom of the footing excavation should be removed to the level of stiff to very stiff residual soils as directed by the geotechnical engineer. Cavities formed as a result of excavation of soft or loose soil zones should be backfilled with lean concrete.

After opening, foundation excavations should be observed and concrete placed as quickly as possible to avoid exposure of the footing bottoms to wetting and drying. Surface run-off water should be drained away from the excavations and not be allowed to pond. The foundation concrete should be placed during the same day the excavation is made. If it is required that footing excavation be left open for more than one day, they should be protected to reduce evaporation or entry of moisture.

Consolidation testing was beyond the scope of this exploration. Based on the known subsurface conditions and site geology, laboratory testing and past experience, we anticipate that properly designed and constructed footings supported on the recommended materials should experience maximum total settlements of less than one inch.

### Subgrade Preparation

All topsoil is to be removed from any building or pavement areas. Subgrade surfaces which are to receive fill or support slabs or pavements are to be proofrolled with suitable construction equipment, and any soft or pumping areas identified and stabilized. Any earth fill required is to be placed in lifts of 8 inches or less, and is to be compacted to a minimum in place density of 98 percent of the maximum laboratory density as determined in accordance with ASTM standard method D-698. All concrete floor slabs are to include a granular base layer at least 4 inches in thickness and a membrane below the slab.

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## CONSTRUCTION CONSIDERATIONS

PSI should be retained to provide observation and testing of construction activities involved in the foundation, earthwork, and related activities of this project. PSI cannot accept responsibility for any conditions that deviated from those described in this report, nor for the performance of the foundations if not engaged to also provide construction observation and testing for this project.

### Groundwater Concerns

Groundwater was not encountered in any of the borings at the time the field exploration was accomplished. However, it is possible that seasonal variations will cause fluctuations or a water table to be present in the upper soils at a later time. Additionally perched water may be encountered in discontinuous zones within the overburden. Any water accumulation should be removed from excavations by pumping. Should excessive and uncontrolled amounts of seepage occur, the geotechnical engineer should be consulted.

### Excavations

In Federal Register, Volume 54, No. 209 (October 1989) the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavation, 29 CFR, part 1926, Subpart P." This document was issued to better insure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavations or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other parties' compliance with local, state, and federal safety or other regulations.

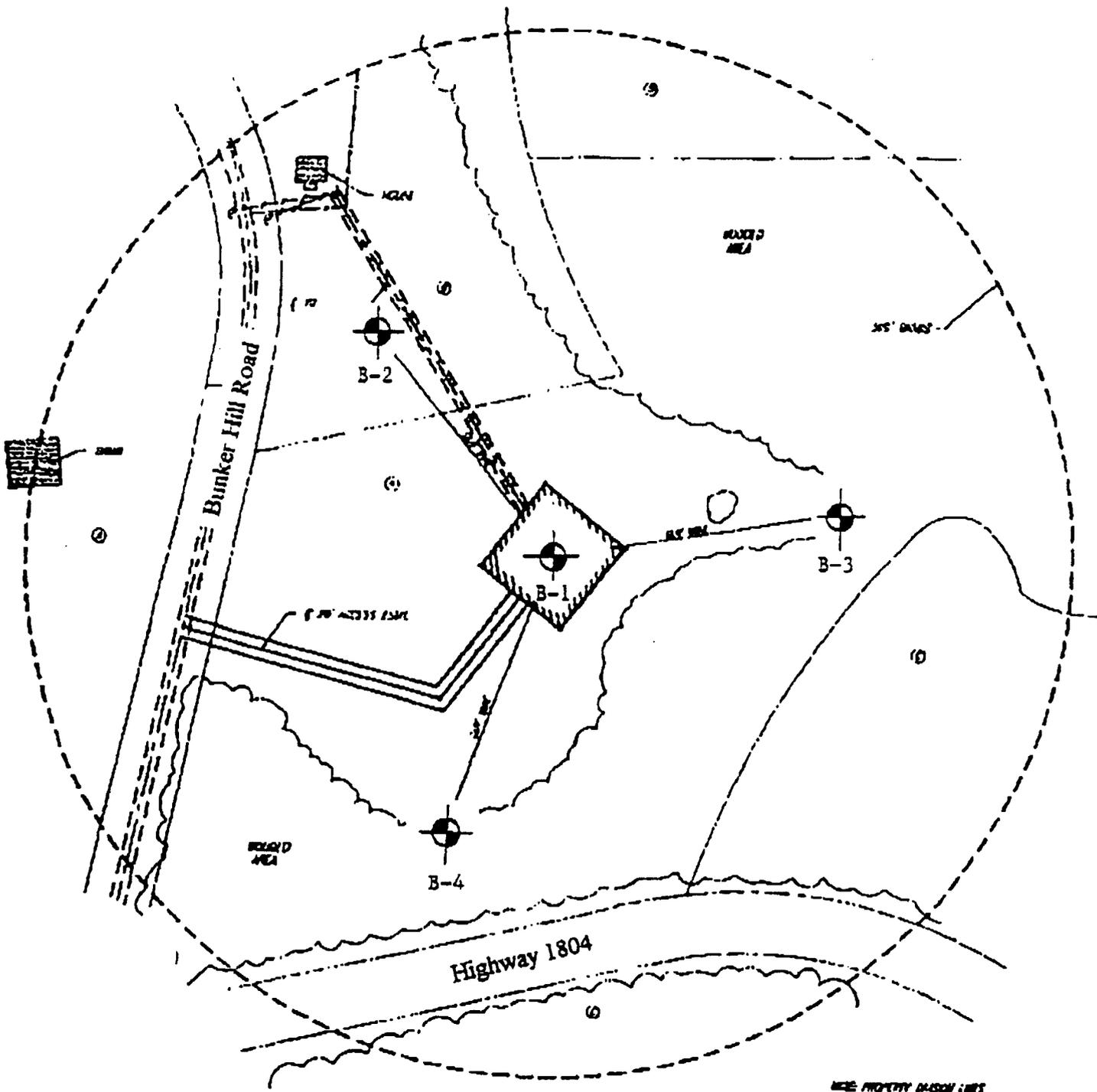
### REPORT LIMITATIONS

The recommendations submitted in this report are based on the available subsurface information obtained by PSI and design details furnished by National Assessment Corporation for the proposed project. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be notified immediately to determine if changes in the recommendations are required. If PSI is not notified of such changes, PSI will not be responsible for the impact of those changes on the project.

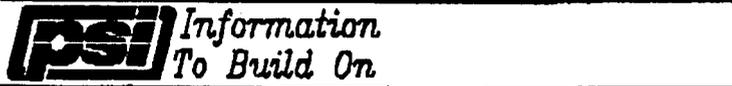
The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At this time, it may be necessary to submit supplementary recommendations. This report has been prepared for the exclusive use of National Assessment Corporation for the specific application to the proposed Guy Tower (Site ID: KY-5100) located in Whitley County in Saxton, Kentucky.

**APPENDIX**



**BORING LOCATION PLAN**  
**Proposed Guy Tower**  
 Whitley County, Saxton, Kentucky



DRAWN SP	SCALE NOT TO SCALE	PROJ. NO. 358-95143
CHECKED NK	DATE July 1999	PLATE 1

⊙ APPROXIMATE BORING LOCATION 

# BORING LOG



Project: <b>Proposed Guy Tower</b>				PSI No.: <b>358-95143</b>		Date: <b>7/26/99</b>															
Boring No.: <b>B-1</b>		Total Depth: <b>35.5'</b>	Elev:	Water at Completion of Soil Drilling: <b>Dry</b>																	
Boring Method: <b>Hollow Stem Auger</b>			Drill Type: <b>CME-75</b>		Driller: <b>LS</b>																
Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf) ▲																
					10	20	30	40	50	60	70	80	90	% M	LL	PI	Qp	Qu	UDW		
	0.7		8" TOPSOIL																		
			Brown and Gray Lean to Fat CLAY, moist, firm to stiff. (CL/CH)	7																	4.5+
	4.0		Brown to Dark Gray Lean to Fat CLAY with trace weathered shale layers, moist, very stiff to hard. (CL/CH)	11																	4.0
			Brown to Dark Gray Lean to Fat CLAY with trace weathered shale layers, moist, very stiff to hard. (CL/CH)	26																	4.5+
	9.0		Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	59																	4.5+
			Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	41																	4.5+
	19.0		Dark Gray to Black Weathered SHALE, moist, hard.	44																	4.5+
			Dark Gray to Black Weathered SHALE, moist, hard.	50/PR																	4.5+
			Dark Gray to Black Weathered SHALE, moist, hard.	47																	4.5+
			Dark Gray to Black Weathered SHALE, moist, hard.	50/PR																	9
	35.5		Boring Terminated at 35.5 Feet	50/PR																	12

NV 95143 7/30/99

# BORING LOG



Project: <b>Proposed Guy Tower</b>	PSI No.: <b>358-95143</b>	Date: <b>7/26/99</b>
Location: <b>Whitley County, Saxton, Kentucky</b>		

Boring No.: <b>B-2</b>	Total Depth: <b>20.5'</b>	Elev:	Water at Completion of Soil Drilling: <b>Dry</b>
Boring Method: <b>Hollow Stem Auger</b>		Drill Type: <b>CME-75</b>	Driller: <b>LS</b>

Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf) ▲										% M	LL	PI	Qp	Qu	UDW
					10	20	30	40	50	60	70	80	90							
	0.8		8" TOPSOIL																	
	2.0		Brown Lean to Fat CLAY with trace weathered shale layers, moist, firm. (CL/CH)	7															4.0	
	4.0		Brownish Gray Fat CLAY, moist, stiff. (CH)	10															2.5	
	6.5		Brown Lean to Fat CLAY with trace weathered shale layers, moist, stiff. (CL/CH)	13															3.0	
	9.0		Brown and Dark Gray Lean to Fat CLAY with weathered shale layers, moist, very stiff. (CL/CH)	25															3.5	
			Brown and Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	50/PR															4.5+	
				50/PR															4.5+	
	19.0																			
	20.5	G	Dark Gray to Black Weathered SHALE, moist.																	
Boring Terminated at 20.5 Feet																				

NY BE143 7/30/99

# BORING LOG



Project: <b>Proposed Guy Tower</b>				PSI No.: <b>358-95143</b>		Date: <b>7/26/99</b>															
Boring No.: <b>B-3</b>		Total Depth: <b>20.5'</b>	Elev:		Water at Completion of Soil Drilling: <b>Dry</b>																
Boring Method: <b>Hollow Stem Auger</b>			Drill Type: <b>CME-75</b>		Driller: <b>LS</b>																
Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf) ▲										% M	LL	PI	Qp	Qu	UDW	
					10	20	30	40	50	60	70	80	90								
	0.7		8" TOPSOIL																		
	2.0		Brown Lean to Fat CLAY with trace roots and weathered shale layers, moist, firm. (CL/CH)	8												26				4.0	
	4.0		Brownish Gray Lean to Fat CLAY, moist, stiff. (CL/CH)	11												26				3.0	
			Brown and Gray Lean to Fat CLAY with weathered shale layers, moist, stiff to very stiff. (CL/CH)	13												21				4.0	
	9.0		Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	22												22				3.5	
				37												19				4.5+	
				36												19				4.5+	
	19.0		Brown and Dark Gray Weathered SHALE, moist, hard.	60												15				4.5+	
	20.5		Boring Terminated at 20.5 Feet																		

NV 95143 7/30/99

# BORING LOG



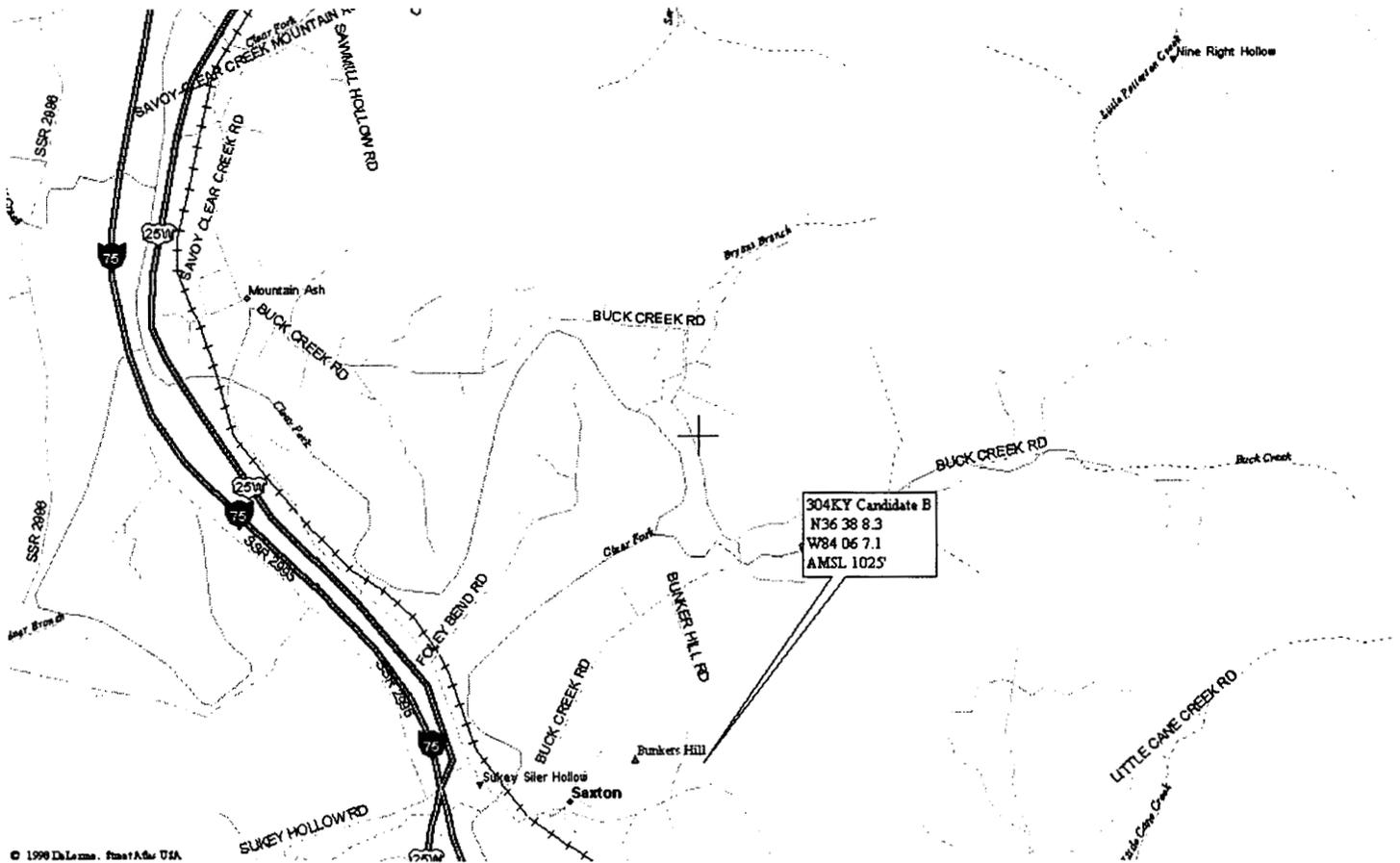
Project: <b>Proposed Guy Tower</b>			PSI No.: <b>358-95143</b>	Date: <b>7/26/99</b>
Location: <b>Whitley County, Saxton, Kentucky</b>				
Boring No.: <b>B-4</b>	Total Depth: <b>20.5'</b>	Elev:	Water at Completion of Soil Drilling: <b>Dry</b>	
Boring Method: <b>Hollow Stem Auger</b>		Drill Type: <b>CME-75</b>	Driller: <b>LS</b>	

Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpt) ▲										% M	LL	PI	Qp	Qu	UDW
					10	20	30	40	50	60	70	80	90							
	0.7		8" TOPSOIL																	
	2.0		Brown Lean to Fat CLAY with trace roots and weathered shale layers, moist, stiff. (CL/CH)	13														2.5		
	4.0		Brown Lean to Fat CLAY, moist, very stiff. (CL/CH)	16														4.5		
			Brown and Gray Lean to Fat CLAY with weathered shale layers, moist, stiff to very stiff. (CL/CH)	14														4.5		
	9.0		Brown Weathered SHALE with brown lean clay layers, moist, hard.	27														4.5+		
				32														4.5+		
	14.0		Dark Gray to Black Weathered SHALE, moist, hard.	50/PR														4.5+		
	20.5		Boring Terminated at 20.5 Feet	43														4.5+		

MV 95143 7/30/99

**EXHIBIT I  
DIRECTIONS TO WCF SITE**

# CANDIDATE LOCATION MAP



**SITE ADDRESS** Approximately 1/4 mile north of SR 1804 on Bunker Hill Road (unmarked)  
 City/Town: Saxton County: Whitley State: KY Zip: 40769

**ACCESS INSTRUCTIONS:** Contact landowner prior to site visit.  
**CONTACT:** Ken Anderson **PHONE:** (606) 549-9961

**DIRECTIONS TO SITE:** From Williamsburg, KY- From the intersection of SSR 296-Main St- and US 25W, turn right and travel south on US 25 approximately 9 miles, then make a sharp turn east (left) onto SSR 1804. (Hwy 1804 is just east of the I-75 underpass on Hwy 25). Continue on 1804, passing through the railroad underpass. Continue east on 1804 approximately 0.5 miles past the railroad underpass, then turn north (left) onto Bunker Hill Road. Proceed slowly up the hill. The proposed tower site is located in the first open field east of Bunker Hill Road, north of Hwy 1804.

Prepared by: Rodney C. Strong  
502-648-5807

**EXHIBIT J**  
**COPY OF REAL ESTATE AGREEMENT**

EXHIBIT C

MEMORANDUM OF AGREEMENT

CLERK: Please return this document to: Nextel Communications  
Attention: Mr. Ried Zulager  
1505 Farm Credit Drive  
McLean, Virginia 22102

This Memorandum of Agreement is entered into on this 3<sup>rd</sup> day of March, 1998, by and between Nextel West Corp., a Delaware corporation, d/b/a Nextel Communications ("Lessee"), and Kenneth and Linda Anderson, his wife, ("Lessors").

1. Lessor and Lessee entered into a Communications Site Lease Agreement ("Agreement") on the 3<sup>rd</sup> day of March 1998, for the purpose of installing, operating and maintaining a radio communications facility and other improvements. All of the foregoing are set forth in the Agreement.
2. The term of this Agreement shall be five (5) years commencing when Lessee begins construction or nine (9) months from the date when Lessee executes this Agreement, whichever first occurs ("Commencement Date") and terminating on the fifth (5<sup>th</sup>) anniversary of the Commencement Date (the "Term") unless otherwise terminated as provided in this Agreement. The Commencement Date may be extended for an additional nine (9) months upon payment of one thousand (\$ ) dollars by Lessee to Lessor within nine (9) months of Lessee's execution of this Agreement. Lessee shall have the right to extend the Term for five (5) successive five (5) year periods (the "Renewal Terms") on the same terms and conditions as set forth herein. This Agreement shall automatically be extended for each successive Renewal Term unless Lessee notifies Lessor of its intention not to renew prior to commencement of the succeeding Renewal Term.
3. The Land which is the subject of the Agreement is described in Exhibit A annexed hereto. The portion of the Land being leased to Lessee (the "Premises") is described in Exhibit B annexed hereto.
4. Lessor has granted to Lessee easements across the Land for access to install, repair and maintain guy wires, guy anchors and guy enclosures ("Azimuth Easements"). Such Azimuth Easements shall encompass that area of the Land, the width and length of which shall be sufficient for the construction of Lessee Facilities, and as more fully described in Exhibit B annexed hereto. Lessor acknowledges that the right of access to the Azimuth Easements shall include the right by Lessee to clear any underbrush or vegetation adjacent to the Azimuth Easements which may block access to the Azimuth Easements.

The Azimuth Easements granted therein shall run with the Land and be appurtenant to and for the benefit of the Premises, and shall be coterminous with this Agreement. Lessor shall not use nor permit its employees, agents, successors or assigns, or any future lessee to use the Land in any manner which interferes with Lessee's use of the Azimuth Easements. The benefits and obligations of the Azimuth Easements shall be a covenant running with the Land and shall inure to and be binding upon the successors, assigns and heirs of the parties.

IN WITNESS WHEREOF, the parties have executed this Memorandum of Agreement as of the day and year first above written.

LESSOR:

LESSEE: Nextel West Corp., a Delaware corporation  
d/b/a Nextel Communications

By: *Kenneth Anderson*  
Kenneth Anderson

By: *Mike Dodson*

By: *Linda Anderson*  
Linda Anderson

Name: Mike Dodson

Date: 11-14-97

Title: Vice President, RF Design & Planning

Date: March 3, 1998

STATE OF KY  
COUNTY OF Whitley

On 11/14/97, before me *Angelia Chappell*, Notary Public, personally appeared **Kenneth Anderson**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

*Angelia H. Chappell* (SEAL)  
Notary Public

My commission expires: 11-18-2000

STATE OF KY  
COUNTY OF Whitley

On 11/14/97, before me *Angelia Chappell*, Notary Public, personally appeared **Linda Anderson**, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

*Angelia H. Chappell* (SEAL)  
Notary Public

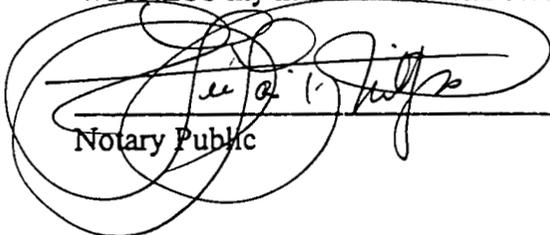
My commission expires: 11-18-2000

COMMONWEALTH OF VIRGINIA

COUNTY OF FAIRFAX

On March 3, 1998, before me, Leilani T. Phillips, Notary Public, personally appeared Mike Dodson, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

 (SEAL)  
\_\_\_\_\_  
Notary Public

Leilani T. Phillips  
Printed Name

My commission expires: March 31, 2001

EXHIBIT A

DESCRIPTION OF LAND

to the Agreement dated 3-3, 1998, by and between Nextel West Corp, Inc., a Delaware corporation, d/b/a Nextel Communications ("Lessee"), and Kenneth Anderson and Linda Anderson, his wife, ("Lessors").

The Land is described and/or depicted as follows (metes and bounds description): All that tract or parcel of land in Whitley County, Kentucky to wit:

Being the same property as described in the Warranty Deed from Lewis Siler and Maxine Siler, his wife (grantor{s}) to Kenneth Anderson and Linda Anderson, his wife (grantee{s}), recorded in Deed Book 374, Page 122, in the aforesaid county records. Said deed and description being incorporated herein as if fully set forth below.

**EXHIBIT B**

**DESCRIPTION OF PREMISES**

to the Agreement dated 3-3, 1998, by and between Nextel West Corp., a Delaware corporation, d/b/a Nextel Communications ("Lessee"), and Kenneth Anderson and Linda Anderson, his wife ("Lessors").

The Premises are described and/or depicted as follows:

A portion of the Land described on Exhibit A as shown on the attached site sketch as Exhibit B-3. Included are easements for access and utilities over the Land described on Exhibit A.

Approximately 10,000 square feet of land located approximately as shown on the attached Exhibit B-3, on which Lessee will construct a 250' guyed tower erected as shown on Exhibit B-1 and B-2 located approximately at Latitude 36 degrees 38 minutes 02 seconds and Longitude 84 degrees 05 minutes and 59 seconds (coordinates were taken from a Magellan GPS 2000 XL Coordinator using NAD 27). Lessee will provide a site specific description within 30 days of obtaining a survey to replace this description which Lessor agrees to accept (provided this Agreement has not been terminated under the terms the Agreement).

**SUPPLEMENT TO EXHIBIT J**

**PORTION OF THE FULL AGREEMENT ON ABANDONMENT**

**Surrender of Property.** Upon expiration or termination of this Lease, Lessee shall, within sixty (60) days, remove its building(s), tower, and all above ground fixtures and restore the Leased Premises to its original condition, reasonable wear and tear excepted.

**EXHIBIT K**  
**CERTIFICATION OF NOTIFICATION**

## Property Owner Notification List

304KY-Saxton

- 1) Ken and Linda Anderson  
P.O. Box 652  
Williamsburg, KY 40769
- 2) Arnold Davenport  
789 Hwy 1804  
Saxton, KY 40769
- 3) James and Edith Davenport  
380 Bunker Hill D.  
Saxton, KY 40769

**EXHIBIT L**  
**COPY OF PROPERTY OWNER NOTIFICATION**

August 23, 1999

Ken and Linda Anderson  
P.O. Box 652  
Williamsburg, KY 40769

RE: Public Notice - Public Service Commission of Kentucky  
Case No.: 99-343  
Our Site No: 304KY-Saxton

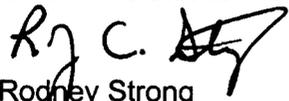
Dear Ken and Linda:

Crown Communication Inc. and NPCR, Inc. (Nextel Partners). have applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide wireless telecommunication services. The facility will include a 350 foot tower with appurtenances attached to a maximum height of 375 feet, and a ground level equipment shelter to be located at 100 Bunker Hill Road, Williamsburg, KY 40769. A temporary tower of shorter stature might be erected at said location while awaiting final PSC approval and the approved tower is operational. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you own property within a 500' radius of the proposed tower

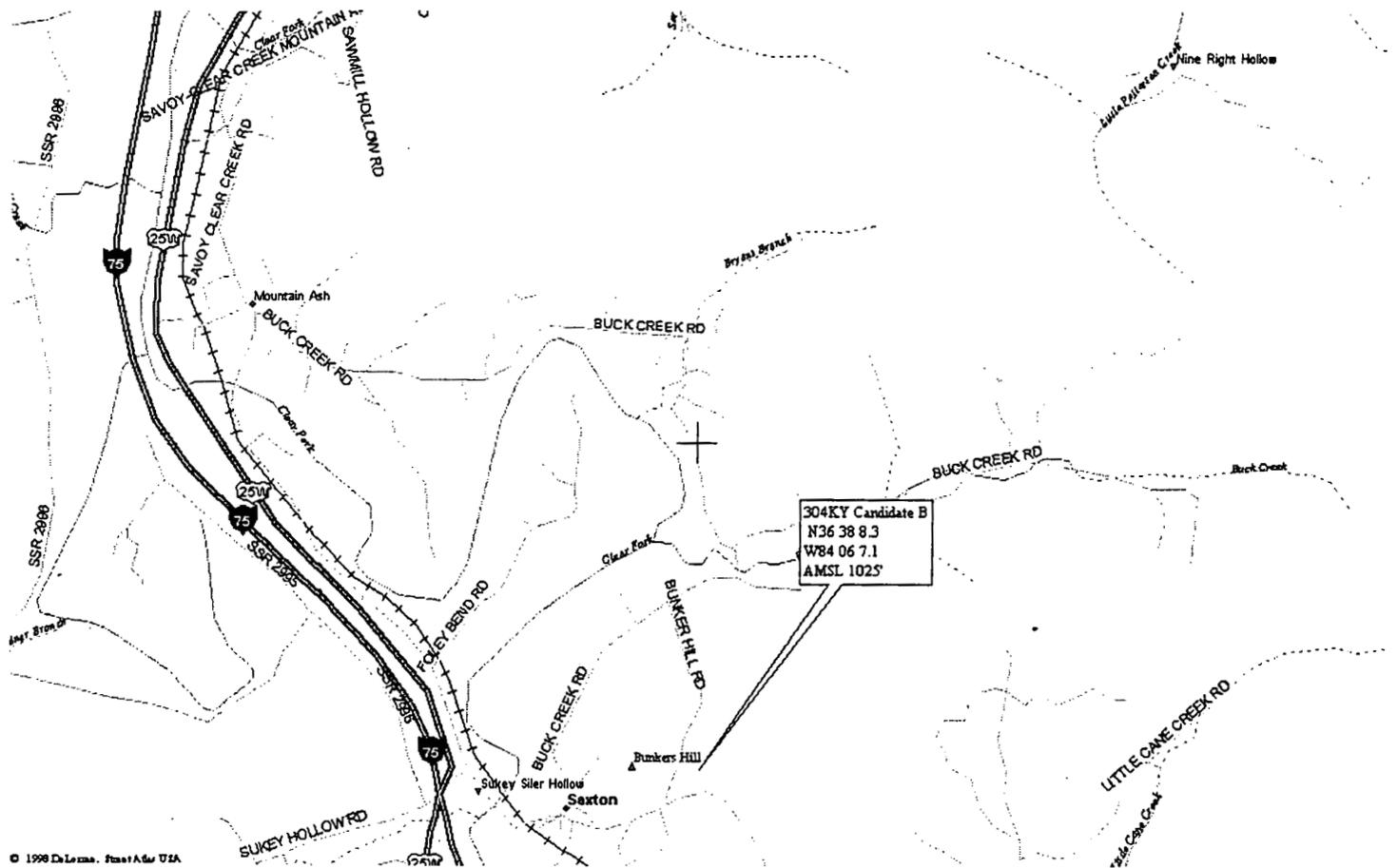
The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. Your initial communication to the Commission must be received by the Commission within 20 days of the date of this letter as shown above. Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, Post Office Box 615, Frankfort, Kentucky 40602. Please refer to Case No: 99-343 in your correspondence.

Feel free to call me at (502) 240-0044, if you have any questions.

Sincerely,  
CROWN COMMUNICATIONS

  
Rodney Strong  
Site Acquisition Specialist  
Crown Communication, Inc

# CANDIDATE LOCATION MAP



**SITE ADDRESS** Approximately 1/4 mile north of SR 1804 on Bunker Hill Road (unmarked)  
 City/Town: Saxton County: Whitley State: KY Zip: 40769

**ACCESS INSTRUCTIONS:** Contact landowner prior to site visit.  
**CONTACT:** Ken Anderson **PHONE:** (606) 549-9961

**DIRECTIONS TO SITE:** From Williamsburg, KY- From the intersection of SSR 296-Main St- and US 25W, turn right and travel south on US 25 approximately 9 miles, then make a sharp turn east (left) onto SSR 1804. (Hwy 1804 is just east of the I-75 underpass on Hwy 25).. Continue on 1804, passing through the railroad underpass. Continue east on 1804 approximately 0.5 miles past the railroad underpass, then turn north (left) onto Bunker Hill Road. Proceed slowly up the hill. The proposed tower site is located in the first open field east of Bunker Hill Road, north of Hwy 1804.

Prepared by: Rodney C. Strong  
502-648-5807

August 23, 1999

James and Edith Davenport  
380 Bunker Hill D.  
Saxton, KY 40769

RE: Public Notice - Public Service Commission of Kentucky  
Case No.: 99-343  
Our Site No: 304KY-Saxton

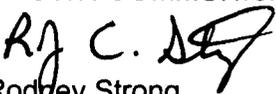
Dear James and Edith:

Crown Communication Inc. and NPCR, Inc. (Nextel Partners) have applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide wireless telecommunication services. The facility will include a 350 foot tower with appurtenances attached to a maximum height of 375 feet, and a ground level equipment shelter to be located at 100 Bunker Hill Road, Williamsburg, KY 40769. A temporary tower of shorter stature might be erected at said location while awaiting final PSC approval and the approved tower is operational. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you own property within a 500' radius of the proposed tower

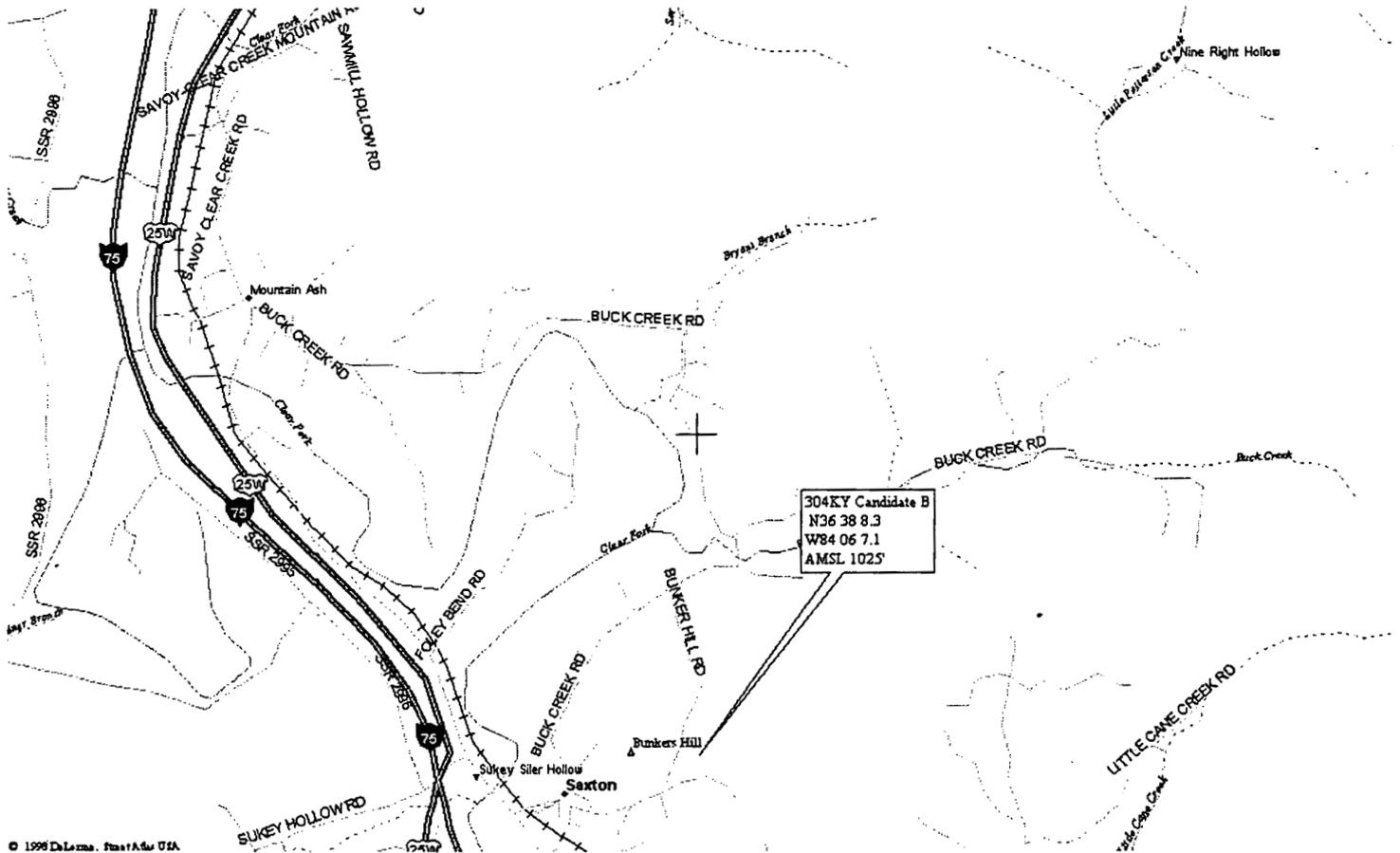
The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. Your initial communication to the Commission must be received by the Commission within 20 days of the date of this letter as shown above. Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, Post Office Box 615, Frankfort, Kentucky 40602. Please refer to Case No: 99-343 in your correspondence.

Feel free to call me at (502) 240-0044, if you have any questions.

Sincerely,  
CROWN COMMUNICATIONS

  
Rodney Strong  
Site Acquisition Specialist  
Crown Communication, Inc

# CANDIDATE LOCATION MAP



**SITE ADDRESS** Approximately ¼ mile north of SR 1804 on Bunker Hill Road (unmarked)  
 City/Town: Saxton County: Whitley State: KY Zip: 40769

**ACCESS INSTRUCTIONS:** Contact landowner prior to site visit.  
**CONTACT:** Ken Anderson **PHONE:** (606) 549-9961

**DIRECTIONS TO SITE:** From Williamsburg, KY- From the intersection of SSR 296-Main St- and US 25W, turn right and travel south on US 25 approximately 9 miles, then make a sharp turn east (left) onto SSR 1804. (Hwy 1804 is just east of the I-75 underpass on Hwy 25). Continue on 1804, passing through the railroad underpass. Continue east on 1804 approximately 0.5 miles past the railroad underpass, then turn north (left) onto Bunker Hill Road. Proceed slowly up the hill. The proposed tower site is located in the first open field east of Bunker Hill Road, north of Hwy 1804.

Prepared by: *Rodney C. Strong*  
 502-648-5807

August 23, 1999

Arnold Davenport  
789 Hwy 1804  
Saxton, KY 40769

RE: Public Notice - Public Service Commission of Kentucky  
Case No.: 99-343  
Our Site No: 304KY-Saxton

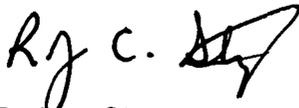
Dear Arnold:

Crown Communication Inc. and NPCR, Inc. (Nextel Partners). have applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide wireless telecommunication services. The facility will include a 350 foot tower with appurtenances attached to a maximum height of 375 feet, and a ground level equipment shelter to be located at 100 Bunker Hill Road, Williamsburg, KY 40769. A temporary tower of shorter stature might be erected at said location while awaiting final PSC approval and the approved tower is operational. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you own property within a 500' radius of the proposed tower

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. Your initial communication to the Commission must be received by the Commission within 20 days of the date of this letter as shown above. Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, Post Office Box 615, Frankfort, Kentucky 40602. Please refer to Case No: 99-343 in your correspondence.

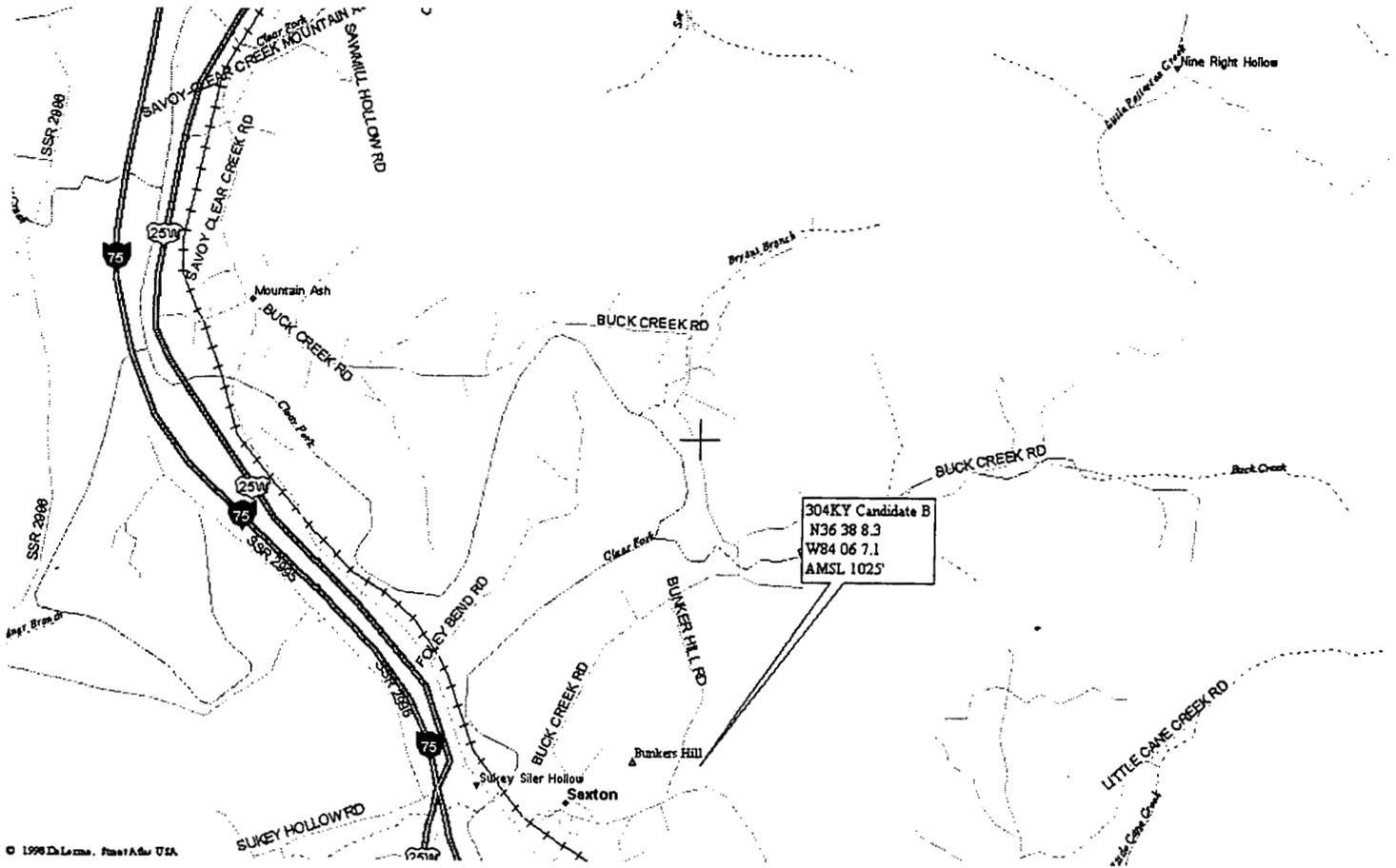
Feel free to call me at (502) 240-0044, if you have any questions.

Sincerely,  
CROWN COMMUNICATIONS



Rodney Strong  
Site Acquisition Specialist  
Crown Communication, Inc

# CANDIDATE LOCATION MAP



**SITE ADDRESS** Approximately ¼ mile north of SR 1804 on Bunker Hill Road (unmarked)  
 City/Town: Saxton County: Whitley State: KY Zip: 40769

**ACCESS INSTRUCTIONS:** Contact landowner prior to site visit.  
**CONTACT:** Ken Anderson **PHONE:** (606) 549-9961

**DIRECTIONS TO SITE:** From Williamsburg, KY- From the intersection of SSR 296-Main St- and US 25W, turn right and travel south on US 25 approximately 9 miles, then make a sharp turn east (left) onto SSR 1804. (Hwy 1804 is just east of the I-75 underpass on Hwy 25). Continue on 1804, passing through the railroad underpass. Continue east on 1804 approximately 0.5 miles past the railroad underpass, then turn north (left) onto Bunker Hill Road. Proceed slowly up the hill. The proposed tower site is located in the first open field east of Bunker Hill Road, north of Hwy 1804.

Prepared by: Rodney C. Strong  
502-648-5807

**EXHIBIT M**  
**COPY OF JUDGE EXECUTIVE NOTICE**

August 23, 1999

Hon. Michael Patrick  
Whitley County Judge Executive  
P.O. Box 237  
Williamsburg, KY40769

RE: Public Notice - Public Service Commission of Kentucky  
Case No.: 99-343  
Our Site No: 305KY-Saxton

Honorable Judge Patrick:

Crown Communication Inc. and NPCR, Inc. (Nextel Partners). have applied to the Public Service Commission of Kentucky for a Certificate of Public Convenience and Necessity to construct and operate a new facility to provide wireless telecommunication services. The facility will include a 350 foot tower with appurtenances attached to a maximum height of 375 feet, and a ground level equipment shelter to be located at 100 Bunker Hill Road, Williamsburg, KY 40769. A temporary tower of shorter stature might be erected at said location while awaiting final PSC approval and the approved tower is operational. A map showing the location of the proposed new facility is enclosed. This notice is being sent to you because you are the Judge Executive of Whitley County.

The Commission invites your comments regarding the proposed construction. You also have the right to intervene in this matter. Your initial communication to the Commission must be received by the Commission within 20 days of the date of this letter as shown above. Your comments and request for intervention should be addressed to: Executive Director's Office, Public Service Commission of Kentucky, Post Office Box 615, Frankfort, Kentucky 40602. Please refer to Case No: 99-343 in your correspondence.

Feel free to call me at (502) 240-0044, if you have any questions.

Sincerely,  
CROWN COMMUNICATIONS

  
Lloyd McCarthy  
For Crown Communication, Inc



**EXHIBIT N**  
**COPY OF POSTING NOTICES**

## Copies of Posting Notices

Crown Communication, Inc proposes to construct a

### **TELECOMMUNICATIONS TOWER**

on this site. If you have questions, please contact the General Manager, Crown Communication, Inc., 11001 Bluegrass Parkway, Suite 330, Louisville, KY 40299, (502) 240-0044 or the Executive Director, Public Service Commission, 730 Schenkel Lane, P.O. Box 615, Frankfort, KY 40602.  
Please refer to Case # 99-343 in your correspondence.

Crown Communication, Inc., proposes to construct a

### **TELECOMMUNICATIONS TOWER**

near this site. If you have questions, please contact the General Manager, Crown Communication, Inc., 11001 Bluegrass Parkway, Suite 330, Louisville, KY 40299, (502) 240-0044 or the Executive Director, Public Service Commission, 730 Schenkel Lane, P.O. Box 615, Frankfort, KY 40602.  
Please refer to Case # 99-343 in your correspondence.

**EXHIBIT O**  
**COPY OF RADIO FREQUENCY DESIGN SEARCH AREA**



# Search Area Report for

Revision #: 1  
Issued On: 3/12/99

KY-5100-A Saxton

Phase #: 1  
Dsgn #: 1Region: 1 - North  
Launch Area: 105 - Corbin / I-75 (KY)Service Area: 691 175  
Proj Office: Louisville**DESIGN SPECIFICATIONS**Latitude: 36 - 38 - 9.20 N = 36.63589 deg  
Longitude: 84 - 6 - 22.10 W = -84.10614 deg  
Source:

GE (AMSL): 1200 ft = 365.76 meter

Rad Center: 300 ft = 91.44 meter

Allowable RC Range: 300-350

**ANTENNA CONFIGURATION**

# of sectors: 1

TTA Used?

 Yes    No    TBD

- Omni                      Bi-Secto                      Tri-Secto
- Quasi-Omn                      Quasi-Hwy                      TBD

**Sect 1 (alpha)****Sect 2 (beta)****Sect 3 (gamma)**

1. Ant Azimuth Orientation

0 deg

deg

deg

2. Antenna Model #

DB810

3

0

0

- Number of Antennas

- Manufacturer's Name

Allen Telecom

- Antenna Gain / Polarizati

10 dBd / Vertical

dBd /

dBd /

- Horiz (Vert) 3dB Beamwid

360 / ( 6 ) deg

/ ( ) deg

/ ( ) deg

- Dimension (WxH)

3" OD

- Length / Weight

15 ft / 35 lbs.

ft / lbs.

ft / lbs.

3. Downtilt: Electr / Mech

0 / 0 deg

/ deg

/ deg

4. Other Antennas

2 GPS antennas by Motorola using 1/2" coaxial cable; mounted near equipment at  
1 BMR antenna by Motorola using 1/2" coaxial cable; mounted near equipment at b**EQUIPMENT TYPE**

Andrew Concrete Shelter (16'x9')

Motorola GENS 4 RFDS System

**COVERAGE OBJECTIVE**

County: Whitley

I-75 and R-25.

**MORPHOLOGY**

Rural

**RF COMMENTS**

Crown (304 KY)

**AUTHORIZATION**

RF Engr: Ahmadkhanlou, Frank

RF Mgr: Bui, Son

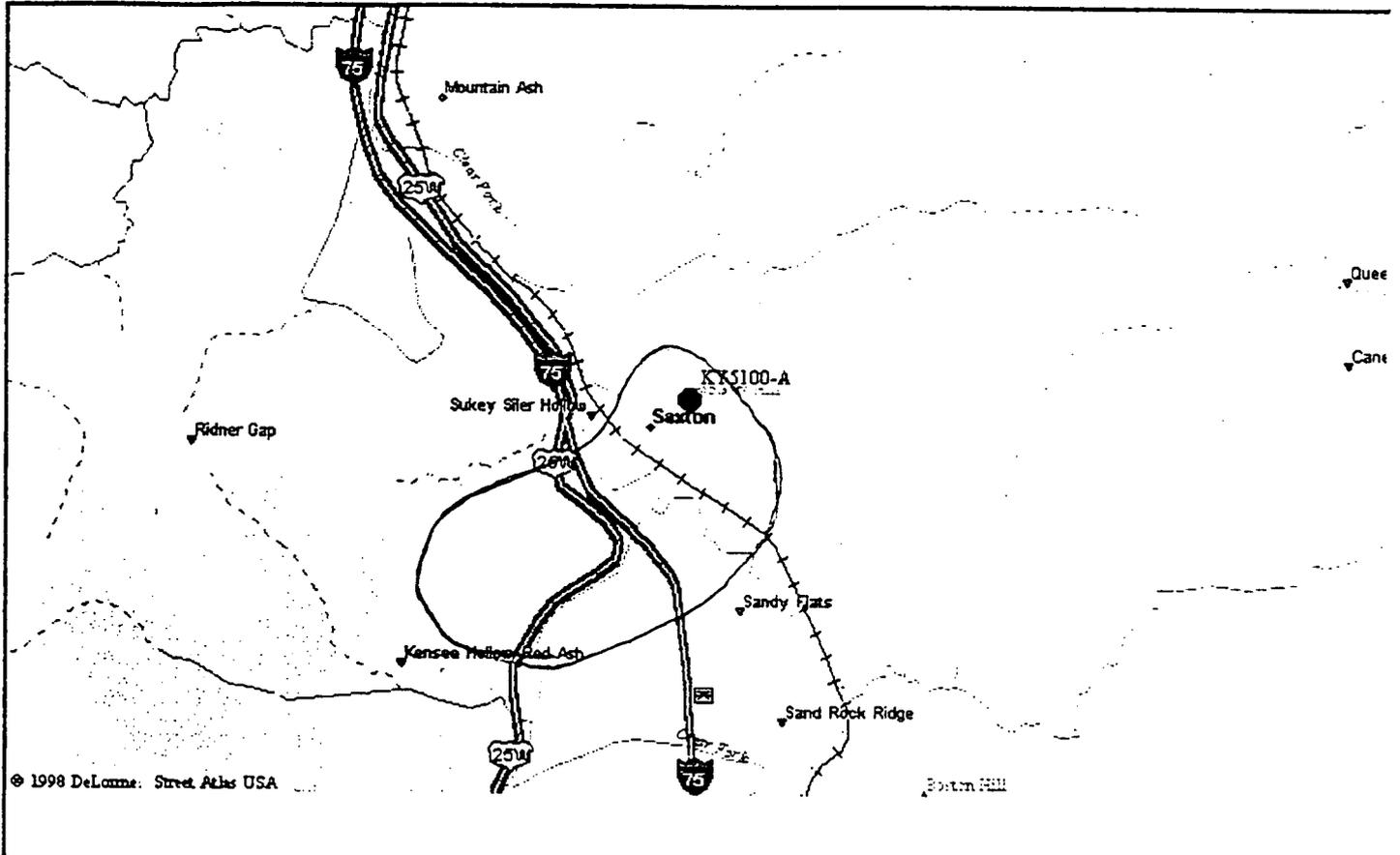


# Search Area Report for

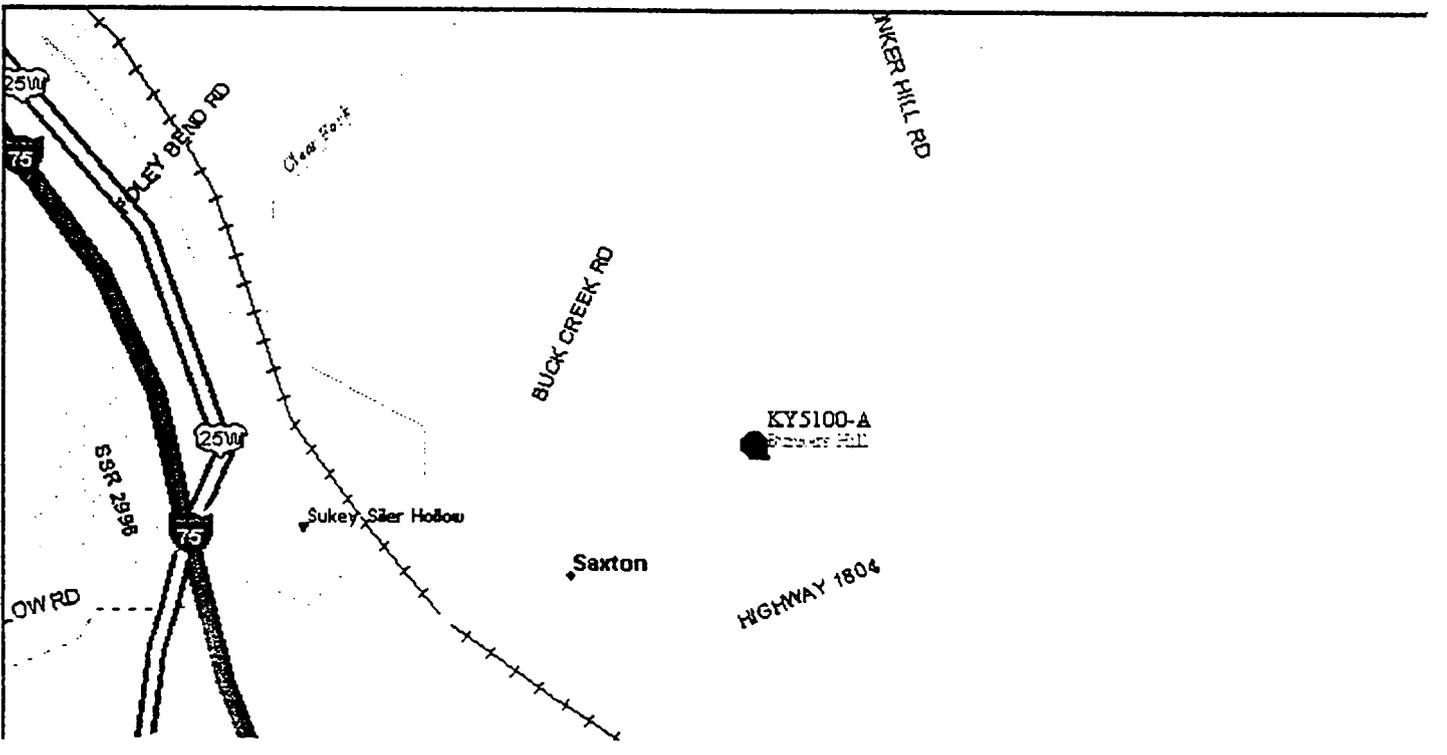
KY-5100-A | Saxton

Revision #: 1  
 Issued On: 3/12/99

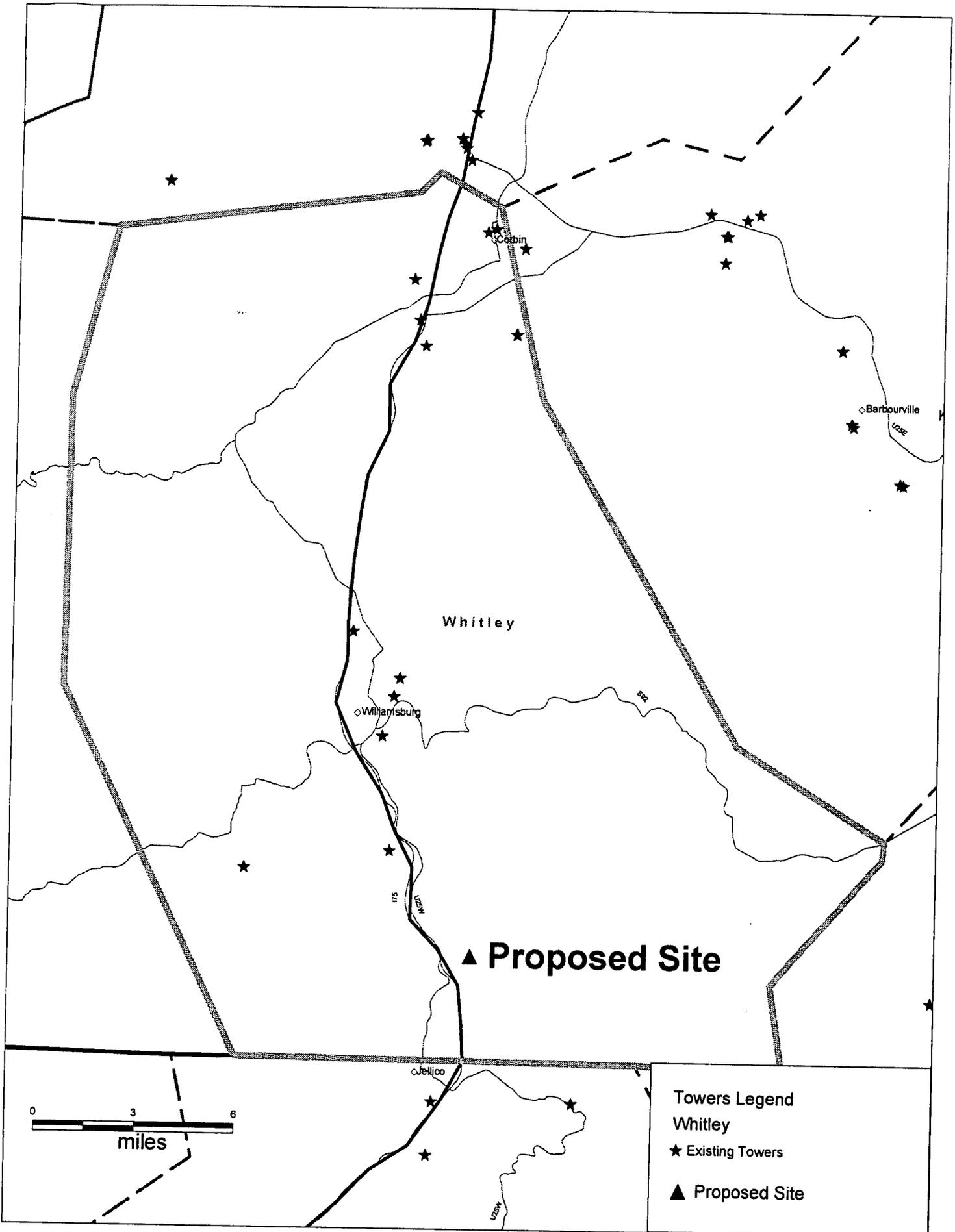
Phase #: 1	Region: 1 - North	Service Area: 691   75
Dsgn #: 1	Launch Area: 105 - Corbin / I-75 (KY)	Proj Office: Louisville



**Map Descriptions:**



**EXHIBIT P**  
**TOWER MAP FOR SUBJECT COUNTY**



July 30, 1999

Mr. Don Spencer  
National Assessment Corporation  
1331 Union Avenue, Suite 1025  
Memphis, Tennessee 38104

Re: Geotechnical Engineering Services Report  
Proposed Guy Tower  
Site ID: KY-5100  
Whitley County  
Saxton, Kentucky  
PSI File No. 358-95143

Dear: Mr. Spencer:

Professional Service Industries, Inc. is pleased to transmit our Geotechnical Engineering Services Report for the referenced project. This report includes the results of field and laboratory testing, and recommendations for foundation design parameters for the referenced project.

We appreciate the opportunity to perform this Geotechnical Study and look forward to continued participation during the design and construction phases of this project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

  
Dennis A. Huckaba, P.E.  
Department Manager  
Geotechnical Services

  
Ralph Reuss  
Vice President-Engineering

DAH/RFR/st

# GEOTECHNICAL ENGINEERING SERVICES REPORT

Proposed Guy Tower  
Site ID: KY-5100  
Whitley County  
Saxton, Kentucky

PSI File No. 358-95143

PREPARED FOR

Mr. Don Spencer  
National Assessment Corporation  
1331 Union Avenue, Suite 1025  
Memphis, Tennessee 38104

July 30, 1999

BY

PROFESSIONAL SERVICE INDUSTRIES, INC.



*Tracey Reagan*  
Tracey Reagan, E.I.  
Project Manager  
Geotechnical Services

Dennis A. Huckaba, P.E.  
Department Manager  
Geotechnical Services

*Ralph Reuss*  
Ralph Reuss  
Vice-President-Engineering

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BORING LOCATION PLAN	
GENERAL NOTES	
BORING LOGS	

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**PROJECT INFORMATION**

**Project Authorization**

Professional Service Industries, Inc. (PSI) has completed a geotechnical exploration for the proposed Guy Tower (ID: KY-5100) in Saxton, Kentucky. Our services were authorized by Mr. Don Spencer of the National Assessment Corporation.

**Project Description**

Project information was provided by Mr. Don Spencer of National Assessment Corporation. We have also been furnished with a fax drawing titled "Saxton/KY-5100-A" that depicts the tower location. We understand that the proposed construction will consist of a 375-foot tall tower with 3 guy supports. Based on the other similar tower projects, uplift and axial loading may reach 200 to 250 kips. Specific load information should be provided for review by PSI once the information is available.

The geotechnical recommendations presented in this report are based on the available project information, tower location, and the subsurface materials described in this report. If any of the noted information is incorrect, please inform PSI in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

**Purpose and Scope of Services**

The purpose of this study was to explore the subsurface conditions at the site to develop recommendations for foundation design parameters and construction. Our scope of services included drilling 4 soil test borings at the site to depths of about 20 to 35 feet below the surface or refusal, select laboratory testing, and preparation of this geotechnical report. This report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and presents recommendations for foundation design parameters and construction.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air, on, or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Prior to development of this site, an environmental assessment is advisable.

## SITE AND SUBSURFACE CONDITIONS

### Site Location and Description

The site for the proposed 375-foot high guy tower is located east of Interstate 75 in Saxton, Kentucky. The site is in Whitley County, north of Highway 1804 and east of Bunker Hill Road.

At the time of our exploration, the site surface was covered in 2-foot high grass. The site sloped downward from north to south with approximately 10 feet of surface relief.

The surficial soils were firm at the time of the field exploration. Our truck mounted drill rig experienced no difficulty in moving about the site.

### Subsurface Conditions

The site subsurface conditions were explored with 4 soil test borings. The boring locations and depths were selected and located in the field by a representative of GEM Engineering Company. The borings were advanced utilizing hollow stem auger drilling methods and soil samples were routinely obtained during the drilling process. Drilling and sampling techniques were accomplished generally in accordance with ASTM procedures. Select soil samples were tested in the laboratory to determine material properties for our evaluation. Laboratory testing was accomplished generally in accordance with ASTM procedures.

The 4 borings were drilled to predetermined termination depths of about 35.5 feet at boring B-1 and about 20.5 feet at borings B-2 through B-4.

The subsurface conditions identified by the 4 borings primarily included 8 inches of topsoil underlain by lean to fat clays with some weathered shale layers, to depths of about 9 feet. Standard penetration resistance N-values within these soils ranged from 7 to 59 blows per foot, indicating soil consistencies of firm to hard. The moisture content of these soils ranged from 14 to 29 percent, with the majority in the twenties. Unconfined compressive strengths, as measured by a calibrated pocket penetrometer, indicated that these soils have relative strength values ranging from 2.5 tsf to 4.5+ tsf. These soils were visually classified as CL and CH according to the Unified Soil Classification System.

Weathered shale with some clay layers was encountered in all 4 borings at depths of about 9 feet to boring termination depths. Standard penetration resistance N-values within the shale ranged from 32 to 60 blows per foot, indicating consistencies of hard. Several sampling attempts of the shale encountered penetration refusal materials resulting in blow counts of 50 or more. The moisture content of the shale ranged from 9 to 27 percent, with the majority in the teens.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the appendix should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on these boring logs. The samples that were not altered by laboratory testing will be retained for 60 days from the date of this report and then will be discarded.

#### Groundwater Information

The 4 borings were dry upon completion of drilling, indicating that the continuous groundwater level at the site at the time of the exploration was either below the terminated depth of the borings, or that the soils encountered were relatively impermeable. Although groundwater was not encountered at this time, it is possible for a groundwater table to be present or fluctuate in the borings within the depths explored during other times of the year depending upon climatic and rain fall conditions. Additionally, discontinuous zones of perched water may exist within the overburden materials.

## RECOMMENDATIONS

### Foundation Design Parameters

At the tower base, a conventional spread footing foundation may be designed for an allowable soil bearing pressure of 6,000 psf under combined dead and live loads. The depth of footing should be a minimum of 4 feet.

Uplift and lateral capacity, depending on load magnitude, can be developed by anchor blocks or drilled piers. Design parameters for each type are as follows:

#### *Anchor Blocks*

Depth Range Ft.	Maximum Intermittent Loads		Continuous Loads	
	$\phi$	C psf	$\phi'$	C' psf
0-2	Neglect	Neglect	Neglect	Neglect
2-9	0	3000	27	200
9-20.5	0	4500	25	300

Where:

- $\phi$  = Angle of Shear
- $\phi'$  = Angle of Internal Friction
- C = Cohesion (psf)
- Total Density 120 pcf
- Groundwater below 20 ft.

#### *Drilled Piers*

Depth Range Ft.	Shear Strength psf	Ultimate Friction psf	Lateral Modulus k, pcf	Strains Factor $E_{50}$
0-2	Neglect	Neglect	Neglect	Neglect
2-9	3000	1650	400	0.005
9-20.5	4500	2500	800	0.004

A factor of safety of 2.0 should be applied to all loads for definition of anchor block or drilled pier dimensions. Concrete with a slump of 7 to 9 inches should be used for drilled piers.

Other structures may be supported on conventional spread footing foundations bearing on stiff to very stiff natural soils. Spread footings can be designed for an allowable soil bearing pressure of 3,000 psf. Minimum dimensions of 24 inches for column footings and 18 inches for continuous footings should be used in foundation design to minimize the possibility of a local bearing capacity failure. Footings should be located at a depth of at least 18 inches below the final exterior grade to provide adequate frost protection.

The foundation excavations should be observed by a representative of PSI prior to steel or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the materials discussed in the report. Soft or loose soils zones encountered at the bottom of the footing excavation should be removed to the level of stiff to very stiff residual soils as directed by the geotechnical engineer. Cavities formed as a result of excavation of soft or loose soil zones should be backfilled with lean concrete.

After opening, foundation excavations should be observed and concrete placed as quickly as possible to avoid exposure of the footing bottoms to wetting and drying. Surface run-off water should be drained away from the excavations and not be allowed to pond. The foundation concrete should be placed during the same day the excavation is made. If it is required that footing excavation be left open for more than one day, they should be protected to reduce evaporation or entry of moisture.

Consolidation testing was beyond the scope of this exploration. Based on the known subsurface conditions and site geology, laboratory testing and past experience, we anticipate that properly designed and constructed footings supported on the recommended materials should experience maximum total settlements of less than one inch.

#### Subgrade Preparation

All topsoil is to be removed from any building or pavement areas. Subgrade surfaces which are to receive fill or support slabs or pavements are to be proofrolled with suitable construction equipment, and any soft or pumping areas identified and stabilized. Any earth fill required is to be placed in lifts of 8 inches or less, and is to be compacted to a minimum in place density of 98 percent of the maximum laboratory density as determined in accordance with ASTM standard method D-698. All concrete floor slabs are to include a granular base layer at least 4 inches in thickness and a membrane below the slab.

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## CONSTRUCTION CONSIDERATIONS

PSI should be retained to provide observation and testing of construction activities involved in the foundation, earthwork, and related activities of this project. PSI cannot accept responsibility for any conditions that deviated from those described in this report, nor for the performance of the foundations if not engaged to also provide construction observation and testing for this project.

### Groundwater Concerns

Groundwater was not encountered in any of the borings at the time the field exploration was accomplished. However, it is possible that seasonal variations will cause fluctuations or a water table to be present in the upper soils at a later time. Additionally perched water may be encountered in discontinuous zones within the overburden. Any water accumulation should be removed from excavations by pumping. Should excessive and uncontrolled amounts of seepage occur, the geotechnical engineer should be consulted.

### Excavations

In Federal Register, Volume 54, No. 209 (October 1989) the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavation, 29 CFR, part 1926, Subpart P." This document was issued to better insure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavations or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. PSI does not assume responsibility for construction site safety or the contractor's or other parties' compliance with local, state, and federal safety or other regulations.

### REPORT LIMITATIONS

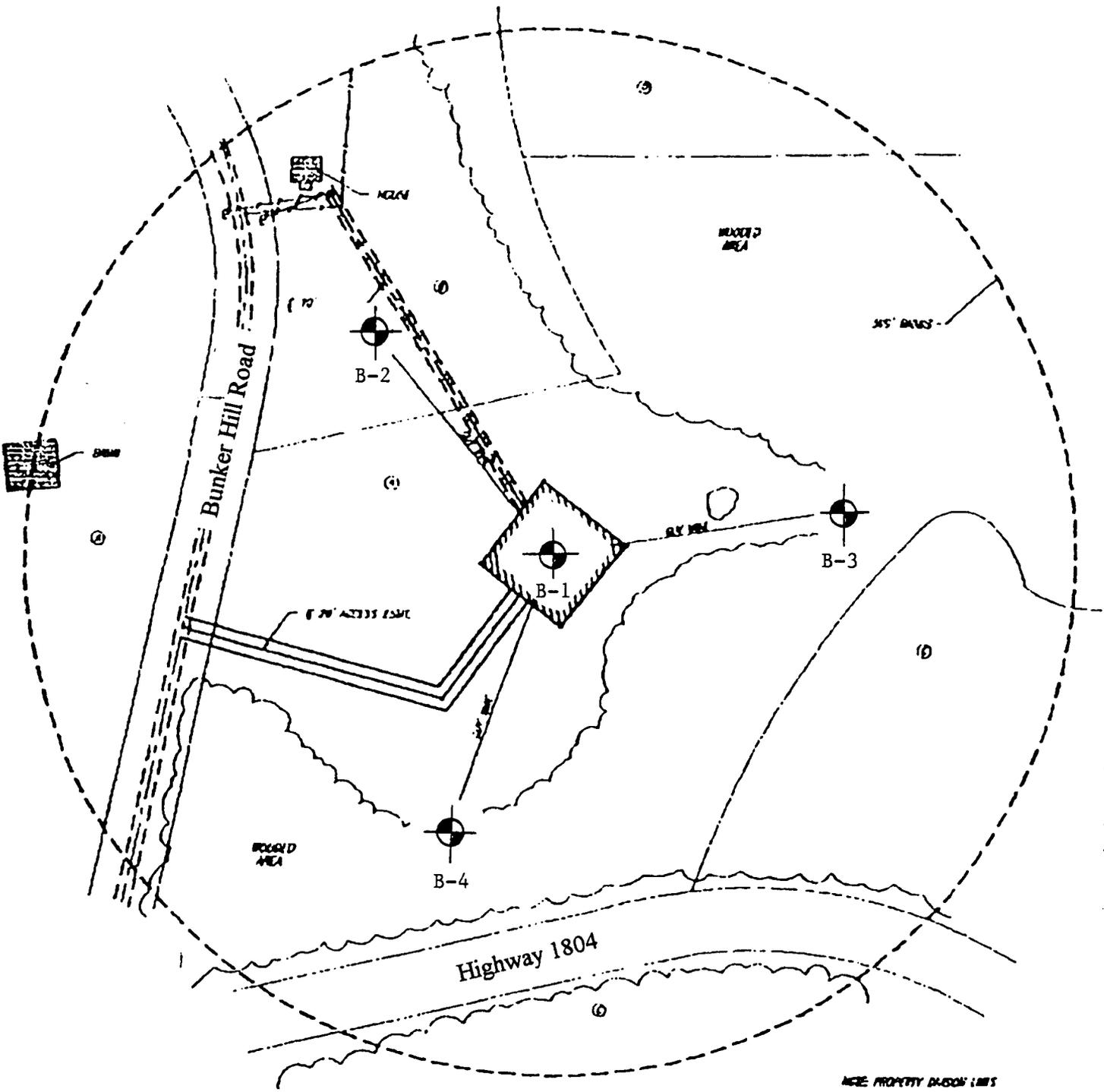
The recommendations submitted in this report are based on the available subsurface information obtained by PSI and design details furnished by National Assessment Corporation for the proposed project. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, PSI should be notified immediately to determine if changes in the recommendations are required. If PSI is not notified of such changes, PSI will not be responsible for the impact of those changes on the project.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the geotechnical engineer should be retained and provided the opportunity to review the final design plans and specifications to check that our engineering recommendations have been properly incorporated into the design documents. At this time, it may be necessary to submit supplementary recommendations. This report has been prepared for the exclusive use of National Assessment Corporation for the specific application to the proposed Guy Tower (Site ID: KY-5100) located in Whitley County in Saxton, Kentucky.

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**APPENDIX**



BORING LOCATION PLAN  
**Proposed Guy Tower**  
 Whitley County, Saxton, Kentucky

**psi** Information  
 To Build On

⊕ APPROXIMATE BORING LOCATION



DRAWN SP	SCALE NOT TO SCALE	PROJ. NO. 358-95143
CHECKED NK	DATE July 1999	PLATE 1

# GENERAL NOTES

## FINE AND COARSE GRAINED SOIL PROPERTIES

PARTICLE SIZE		COARSE GRAINED SOILS (SANDS & GRAVELS)		FINE GRAINED SOILS (SILTS & CLAYS)		
		N-VALUE	RELATIVE DENSITY	N-VALUE	CONSISTENCY	Qu, PSF
BOULDERS:	GREATER THAN 300 mm	0-4	VERY LOOSE	0-2	VERY SOFT	0 - 500
COBBLES:	75 mm to 300 mm	5-10	LOOSE	3-4	SOFT	500 - 1000
GRAVEL:	4.74 mm to 75 mm	11-30	MEDIUM DENSE	5-8	FIRM	1000 - 2000
COARSE SAND:	2 mm to 4.75 mm	31-50	DENSE	9-15	STIFF	2000 - 4000
MEDIUM SAND:	0.425 mm to 2 mm	OVER 50	VERY DENSE	16-30	VERY STIFF	4000 - 8000
FINE SAND:	0.075 mm to 0.425 mm			OVER 31	HARD	8000+
SILTS & CLAYS:	LESS THAN 0.075 mm					

## STANDARD PENETRATION TEST (ASTM D1586)

THE STANDARD PENETRATION TEST AS DEFINED BY ASTM D1586 IS A METHOD TO OBTAIN A DISTURBED SOIL SAMPLE FOR EXAMINATION AND TESTING AND TO OBTAIN RELATIVE DENSITY AND CONSISTENCY INFORMATION. THE 1.4 INCH I.D./2.0 INCH O.D. SAMPLER IS DRIVEN 3-SIX INCH INCREMENTS WITH A 140 LB. HAMMER FALLING 30 INCHES. THE BLOW COUNTS REQUIRED TO DRIVE THE SAMPLER THE FINAL 2 INCREMENTS ARE ADDED TOGETHER AND DESIGNATE THE N-VALUE. AT TIMES, THE SAMPLER CAN NOT BE DRIVEN THE FULL 18 INCHES. THE FOLLOWING PRESENTS OUR INTERPRETATION OF THE STANDARD PENETRATION TEST WITH VARIATIONS.

BLOWS/FOOT (N-VALUE)	DESCRIPTION
25.....	25 BLOWS DROVE SAMPLER 12" AFTER INITIAL 6" SEATING
75/10".....	75 BLOWS DROVE SAMPLER 10" AFTER INITIAL 6" SEATING
50/PR.....	SAMPLER ENCOUNTERED PENETRATION REFUSAL AFTER 50 BLOWS WITH NO PENETRATION
50/2".....	50 BLOWS DROVE SAMPLER 2" AFTER NO INITIAL 6" SEATING

### KEY TO MATERIAL CLASSIFICATION

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### SOIL PROPERTY SYMBOLS

- N: STANDARD PENETRATION, BPF
- M: MOISTURE CONTENT, %
- LL: LIQUID LIMIT, %
- PI: PLASTICITY INDEX, %
- Qp: POCKET PENETROMETER VALUE, TSF
- Qu: UNCONFINED COMPRESSIVE STRENGTH, TSF
- DUW: DRY UNIT WEIGHT, PCF

### SAMPLING SYMBOLS

- UNDISTURBED SAMPLE
- SPLIT SPOON SAMPLE
- ROCK CORE SAMPLE
- AUGER OR BAG SAMPLE
- WATER LEVEL AFTER DRILLING
- WATER LEVEL AFTER 24 HRS

## ROCK PROPERTIES

### ROCK QUALITY DESIGNATION (RQD)

PERCENT RQD	QUALITY
90 to 100	EXCELLENT
75 to 90	GOOD
50 to 75	FAIR
25 to 50	POOR
0 to 25	VERY POOR

### ROCK HARDNESS

- VERY SOFT:** ROCK DISINTEGRATES OR EASILY COMPRESSES TO TOUCH; CAN BE HARD TO VERY HARD SOIL.
- SOFT:** ROCK IS COHERANT BUT BREAKS EASILY TO THUMB PRESSURE AT SHARP EDGES AND CRUMBLES WITH FIRM HAND PRESSURE.
- MODERATELY HARD:** SMALL PIECES CAN BE BROKEN OFF ALONG SHARP EDGES BY CONSIDERABLE HARD THUMB PRESSURE; CAN BE BROKEN BY LIGHT HAMMER BLOWS.
- HARD:** ROCK CANNOT BE BROKEN BY THUMB PRESSURE, BUT CAN BE BROKEN BY MODERATE HAMMER BLOWS.
- VERY HARD:** ROCK CAN BE BROKEN BY HEAVY HAMMER BLOWS.

Project: **Proposed Guy Tower**      PSI No.: **358-95143**      Date: **7/26/99**  
 Location: **Whitley County, Saxton, Kentucky**

Boring No.: **B-1**      Total Depth **35.5'**      Elev:      Water at Completion of Soil Drilling: **Dry**

Boring Method: **Hollow Stem Auger**      Drill Type: **CME-75**      Driller: **LS**

Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf) ▲										% M	LL	PI	Qp	Qu	UDW
					10	20	30	40	50	60	70	80	90							
	0.7		8" TOPSOIL																	
			Brown and Gray Lean to Fat CLAY, moist, firm to stiff. (CL/CH)	7														4.5+		
	4.0		Brown to Dark Gray Lean to Fat CLAY with trace weathered shale layers, moist, very stiff to hard. (CL/CH)	11														4.0		
				26														4.5+		
	9.0		Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	59														4.5+		
				41														4.5+		
				44														4.5+		
	19.0		Dark Gray to Black Weathered SHALE, moist, hard.	50/PR														4.5+		
				47														4.5+		
				50/PR																
	35.5		Boring Terminated at 35.5 Feet	50/PR																

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Project: **Proposed Guy Tower**      PSI No.: **358-95143**      Date: **7/26/99**  
 Location: **Whitley County, Saxton, Kentucky**

Boring No.: **B-2**      Total Depth **20.5'**      Elev:      Water at Completion of Soil Drilling: **Dry**

Boring Method: **Hollow Stem Auger**      Drill Type: **CME-75**      Driller: **LS**

Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf)					% M	LL	PI	Qp	Qu	UDW
					10	20	30	40	50						
	0.8		8" TOPSOIL												
	2.0		Brown Lean to Fat CLAY with trace weathered shale layers, moist, firm. (CL/CH)	7							27		4.0		
	4.0		Brownish Gray Fat CLAY, moist, stiff. (CH)	10							29		2.5		
	6.5		Brown Lean to Fat CLAY with trace weathered shale layers, moist, stiff. (CL/CH)	13							21		3.0		
	9.0		Brown and Dark Gray Lean to Fat CLAY with weathered shale layers, moist, very stiff. (CL/CH)	25							20		3.5		
			Brown and Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	50/PR							12		4.5+		
				50/PR							14		4.5+		
	19.0														
	20.5	G	Dark Gray to Black Weathered SHALE, moist.								14				
			Boring Terminated at 20.5 Feet												

# BORING LOG

Project: **Proposed Guy Tower**      PSI No.: **358-95143**      Date: **7/26/99**  
 Location: **Whitley County, Saxton, Kentucky**

Boring No.: **B-3**      Total Depth **20.5'**      Elev:      Water at Completion of Soil Drilling: **Dry**

Boring Method: **Hollow Stem Auger**      Drill Type: **CME-75**      Driller: **LS**

Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf) ▲															
					10	20	30	40	50	60	70	80	90	% M	LL	PI	Qp	Qu	UDW	
	0.7		8" TOPSOIL																	
	2.0		Brown Lean to Fat CLAY with trace roots and weathered shale layers, moist, firm. (CL/CH)	8															4.0	
	4.0		Brownish Gray Lean to Fat CLAY, moist, stiff. (CL/CH)	11															3.0	
			Brown and Gray Lean to Fat CLAY with weathered shale layers, moist, stiff to very stiff. (CL/CH)	13															4.0	
	9.0		Dark Gray Weathered SHALE with brown lean clay layers, moist, hard.	22															3.5	
				37															4.5+	
				36															4.5+	
	19.0		Brown and Dark Gray Weathered SHALE, moist, hard.	60															4.5+	
	20.5		Boring Terminated at 20.5 Feet																	

# BORING LOG

Project: <b>Proposed Guy Tower</b>	PSI No.: <b>358-95143</b>	Date: <b>7/26/99</b>
Location: <b>Whitley County, Saxton, Kentucky</b>		

Boring No.: <b>B-4</b>	Total Depth: <b>20.5'</b>	Elev:	Water at Completion of Soil Drilling: <b>Dry</b>
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Boring Method: <b>Hollow Stem Auger</b>	Drill Type: <b>CME-75</b>	Driller: <b>LS</b>
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Elevation (MSL)	Depth (feet)	Sample	DESCRIPTION OF MATERIALS	N	N VALUE (bpf) ▲										% M	LL	PI	Qp	Qu	UDW
					10	20	30	40	50	60	70	80	90							
	0.7		8" TOPSOIL																	
	2.0		Brown Lean to Fat CLAY with trace roots and weathered shale layers, moist, stiff. (CL/CH)	13															2.5	
	4.0		Brown Lean to Fat CLAY, moist, very stiff. (CL/CH)	16															4.5	
			Brown and Gray Lean to Fat CLAY with weathered shale layers, moist, stiff to very stiff. (CL/CH)	14															4.5	
	9.0		Brown Weathered SHALE with brown lean clay layers, moist, hard.	27															4.5+	
			Dark Gray to Black Weathered SHALE, moist, hard.	32															4.5+	
	14.0			50/PR															4.5+	
	20.5		Boring Terminated at 20.5 Feet	43															4.5+	

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